



Construction Sector



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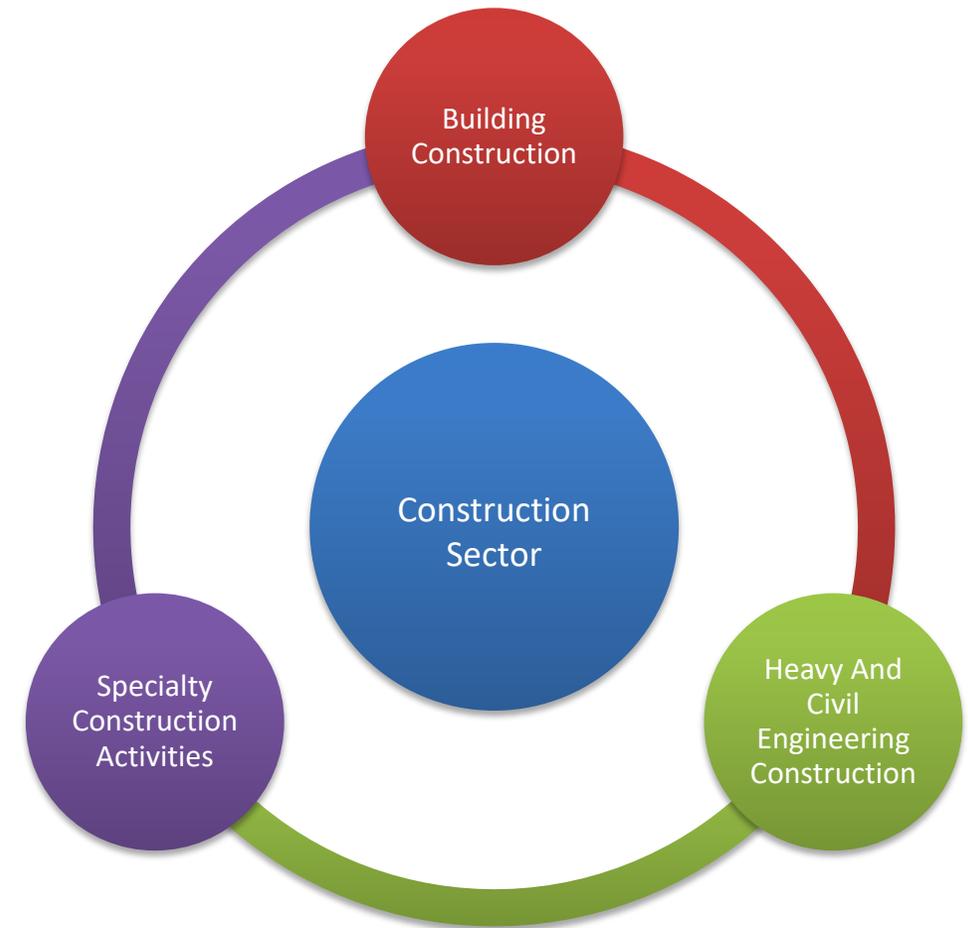
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Construction

Global Overview

- Construction comprises all economic activities directed towards designing, building, renovation, repair or extension of fixed assets in the form of buildings, land improvements of an engineering nature, and other infrastructure developments such as roads, bridges, dams and so forth.
- The construction market can be broadly classified into the following segments:
 - a) Buildings Construction
Includes both residential and commercial buildings.
 - b) Heavy and Civil Engineering Construction
Includes large public works, dams, bridges, highways, railways, water or wastewater and utility distribution.
 - c) Specialized Construction Activities
Includes aspects common to different kind of structures, requiring specialized skill or equipment
- The buildings construction market is the largest segment of the construction market segmented by type, accounting for ~52% of the total revenue generated in 2019.
- Growth in the sector emanates from strong economic growth in emerging markets and low interest rates in most developed countries, increasing the demand for elderly friendly infrastructure and technological development. Factors that negatively affect growth are geo-political tensions and rising material costs.





Construction

Global Overview

- The global construction market reached a value of nearly USD~12,744bln in CY19, having increased at a compounded annual growth rate (CAGR) of ~6.1% since CY15 as compared to average global GDP growth of ~2.8% during the same period.
- In CY20, the economic slowdown induced by the COVID-19 lock down and other social distancing measures imposed by different economies across the globe had negative impact on the sector with an estimated decline of ~0.6%.
- With rising global population comes increased demand for infrastructure projects. The construction sector is expected to recover and grow at a CAGR of ~7.5% from CY21 and reach a value of USD~15,482bln in CY23. Global growth is expected to be led by Asian countries, wherein China and India would be the major contributors. As mentioned in the adjacent table, out of top ten listed construction companies, six companies are Chinese.
- Due to high linkages of construction industry with other allied industries, the growth in construction sector bodes well for the overall growth of global economic activity. Technological development is making inroads in construction sector as well. Construction companies are increasingly using autonomous construction vehicles and heavy equipment to improve productivity through use of sensors, cameras and GPS. Real-time data obtained from these devices helps in remote monitoring of a jobsite and reduces construction time.

| Top Ten Companies (In terms of latest revenue) | | | | |
|------------------------------------------------|------------|-----------|-----------|-----------|
| Figures in USD bln | China | France | Spain | Germany |
| China State Construction & Engineering | 203 | - | - | - |
| China Railway Group | 124 | - | - | - |
| China Railway Construction Corporation | 121 | - | - | - |
| China Communications Construction | 81 | - | - | - |
| Vinci | - | 55 | - | - |
| Metallurgical Corporation of China | 49 | - | - | - |
| ACS | - | - | 44 | - |
| Bouygues' Construction Division | - | 43 | - | - |
| Shanghai Construction Group | 29 | - | - | - |
| Hochtief | - | - | - | 29 |
| Total | 607 | 97 | 44 | 29 |

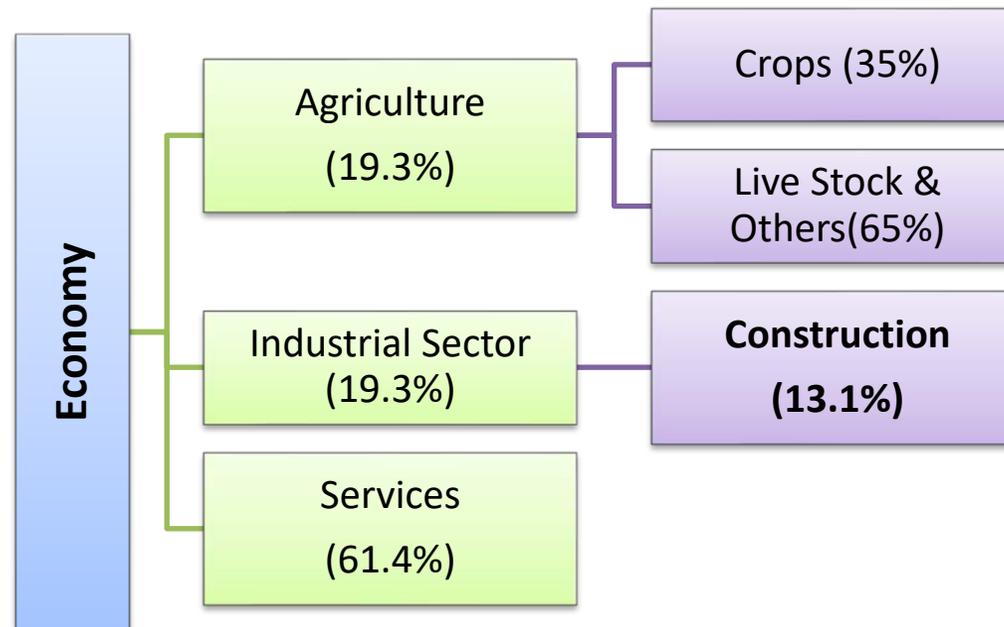
Global Overview

- According to Asian Development Bank (ADB) data, Asian countries are estimated to invest USD~26,121bln in their infrastructural projects to meet the demand of growing population in the region.
- As reflected in the table below, amongst Asian countries, East Asia and China hold the highest portion of Investment needs (*adjusted*).

| Infrastructure Investment by Region , CY6-CY30 (USD bln in 2015 prices) | | | | | | |
|----------------------------------------------------------------------------|--------------------|----------------|------------------------------|----------------------------|----------------|---------------------------|
| Region/ Sub-Region | Baseline Estimates | | | Climate Adjusted Estimates | | |
| | Investment Needs | Annual Average | Investment Needs as % of GDP | Investment Needs | Annual Average | Investment Needs as % GDP |
| Central Asia | 492 | 33 | 6.8 | 565 | 38 | 7.8 |
| East Asia | 13,781 | 919 | 4.5 | 16,062 | 1,071 | 5.2 |
| China | 13,120 | 875 | 5 | 15,267 | 1,018 | 5.8 |
| South Asia | 5,477 | 365 | 7.6 | 6,347 | 423 | 8.8 |
| India | 4,363 | 291 | 7.4 | 5,152 | 343 | 8.8 |
| Southeast Asia | 2,759 | 184 | 5 | 3,147 | 210 | 5.7 |
| Indonesia | 1,108 | 74 | 5.5 | 1,229 | 82 | 6 |
| Total | 22,509 | 1,501 | 8.2 | 26,121 | 1,742 | 9.1 |

Local Industry Overview

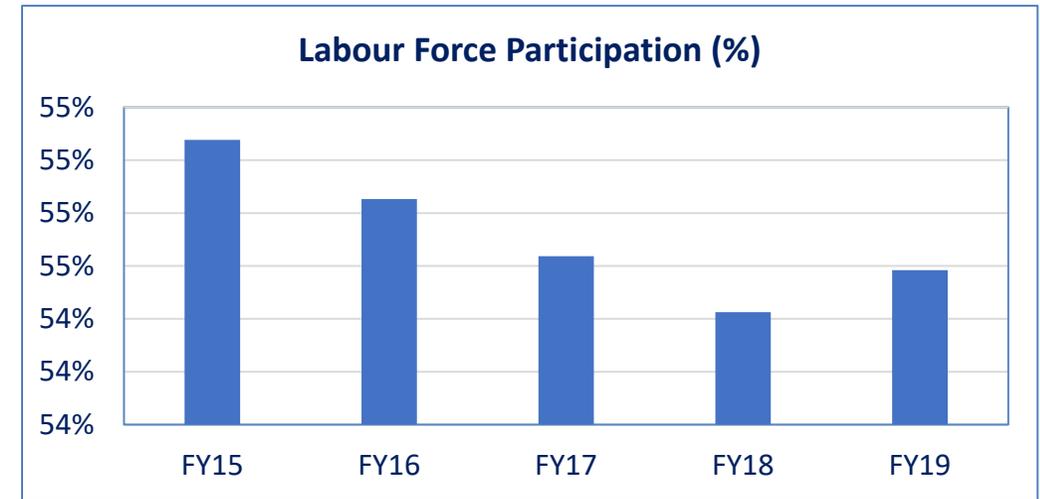
- Industrial sector is essential for economic growth considering its linkages with other sectors. It contributes ~19.3% to Pakistan's GDP. During FY20, the country's overall GDP contracted by ~0.4% on account of the COVID-19 pandemic spread (FY19: Growth ~1.2%). COVID-19 lockdown and overall economic slowdown had severe implication for industrial sector as well, as its registered negative growth of ~-2.64% during FY20 (FY19: ~-2.27%).
- The government of Pakistan and SBP announced series of incentives during 4QFY20 to support businesses and to stimulate business activity. The stimulus measures yielded positive results for the economy. The GDP is expected to grow at ~3% in FY21.



Construction

Local Industry Overview

- Pakistan is the 5th most populous country in the world. As per the census of CY17, the population of Pakistan is ~207mln (expected to become ~282mln by CY30) with a strong labour force of ~73mln. The country’s population growth rate averages around ~2%, which is almost double the global growth rate of ~1.1%. This creates an ever increasing demand for construction and a supply of labour force to the construction industry.
- The construction sector contributed almost PKR~794bln to the Gross Domestic Product (GDP) of Pakistan in FY20 (FY19: PKR~734bln), registering a growth of ~8.1% YoY basis. Contribution to GDP decreased between FY19 and FY20 from ~2.05% to ~2.04%. Construction activity during FY20 increased by ~8.1% due to an increase in government support and uptick in investment by private sector. Gross fixed capital formation (GFCF) in private sector grew by ~20.6% between FY19 and FY20.
- Construction sector absorbs ~7.6% of the country’s total labour force and also provides stimulus to over 42 ancillary sectors including aluminum, brick, cables, cement, fixtures, glass, kitchen and bathroom fittings, marble, paint, steel, tiles, transportation, warehousing and wood.



| | FY16 | FY17 | FY18 | FY19 | FY20 |
|-------------------------------|-------|-------|-------|-------|-------|
| Construction Sector (PKR bln) | 601 | 679 | 791 | 734 | 794 |
| Construction Sector % of GDP | 2.19% | 2.27% | 2.44% | 2.05% | 2.04% |

Construction

Demand

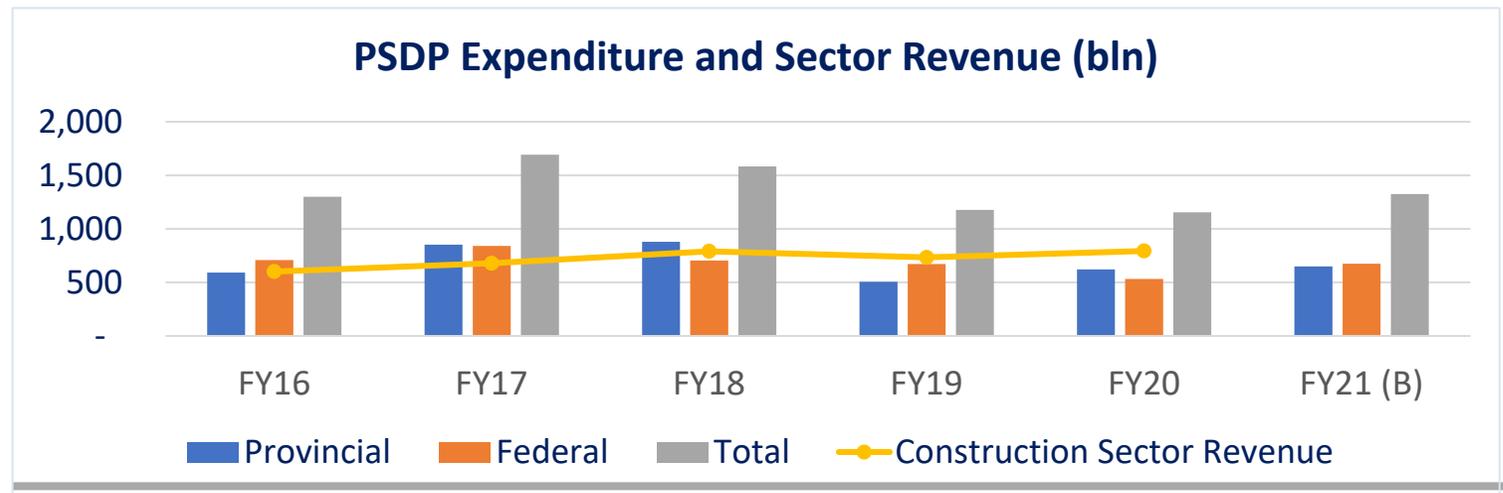
- The major demand driver for the construction sector is the Public Sector Development Programme (PSDP) expenditure followed by Private Investments. Majority of the construction revenue is from government contracts ranging from building of Infrastructure to Highways, Offices and Airports. With the launch of CPEC, construction sector activity picked up pace. In addition, the Government’s relief packages and subsidies are also providing impetus for growth in the industry. PSDP budget allocation for FY21 is PKR~1,325bln (FY20 PKR~1,155bln) which comprises PKR~650bln (PKR~622bln FY20) for provincial and PKR~675bln (PKR~533bln FY20) for federal expenditure.
- Pakistan’s Highway network comprises 39 national highways, motorways, expressways and strategic roads. The existing portfolio of National Highway Authority (NHA) consists of 40 on-going projects with an allocation of PKR~179bln in PSDP budgeted expenditure for FY21. Pakistan ranks 22nd worldwide for the size of its road network as per road length of 270,971 Km. The country is likely to improve its ranking significantly with the construction of new mega projects under the CPEC.
- Private and residential buildings and homes are also a major driver in construction especially in the rural areas. The demand for residential homes is steadily growing with the growth of population pace.
- The government has announced PKR~100bln package in Apr-2020 for the construction industry to keep the country afloat amid the COVID-19 pandemic. The construction industry is considered as a backbone of any economy as it provides enormous employment opportunities to skilled and unskilled workers. The construction sector also provides stimulus to its allied industries and to the economy as a whole. Hence, federal government in collaboration with provinces is making all efforts to generate economic activity in the country by adopting a strategy of smart lockdown with established SOPs.

| PSDP Allocation | Budgeted | | Authorized | |
|---------------------|----------|------|------------|--------|
| | FY20 | FY21 | 1HFY20 | 1HFY21 |
| Total Federal (bln) | 701 | 650 | 301 | 208 |

Construction

Demand

- The budgeted size of PSDP allocation for FY21 is PKR~1,324bln (FY20: PKR~1,155bln). The COVID-19 pandemic has made the demand for public investment essential in order to trigger job creation, revive the economic activity and alleviate increased poverty. Budgeted PSDP allocation has increased by ~15% in FY21 YoY basis. With the increased allocation coupled with other initiatives, the outcome looks encouraging. PSDP expenditure is highly correlated to construction sector activity.
- Another positive factor to uplifting the construction sector demand is the Government's announced special package for the construction sector. The package includes amnesty scheme, tax exemptions and PKR~30bln subsidy for Naya Pakistan Housing Scheme. This will jack up the construction industries and other allied industries and also generate employment.



| Ministry/Sector (FY21) | Amount PKR in Bln | % Allocation |
|-----------------------------------|-------------------|----------------|
| National Highways & Railways | 143 | 22.00% |
| Special Areas (FATA, GB and AJ&K) | 52 | 8.00% |
| Energy/Power | 66 | 10.15% |
| COVID | 70 | 10.77% |
| Water Resources | 81 | 12.46% |
| Other Development | 72 | 11.08% |
| Education | 34 | 5.23% |
| Food & Agriculture | 12 | 1.85% |
| SDGs | 2 | 0.31% |
| Science & Info | 84 | 12.92% |
| Health & Population | 29 | 4.46% |
| Climate Change | 5 | 0.77% |
| Total Federal PSDP | 650 | 100.00% |



Latest Developments

Major Public Sector Projects:

- Dams: Initial/preparatory works for the construction of Diamer Bhasha Dam and Mohmand Dam is in progress.
- Construction of new green field Gwadar International Airport and Gwadar Port Free Zone. The construction of Free Zone Phase-I has been completed with all infrastructures. More than 30 enterprises from various sectors have registered in Gwadar Port Free Zone.
- NHA Projects Under CPEC; To ensure smooth and efficient movement of goods and passengers while ensuring safety, NHA is planning and executing Khunjrab to Gwadar connectivity under the China Pakistan Economic Corridor (CPEC). Also, construction of “East Bay Expressway” connecting Gwadar Port to Makran Coastal Highway is in process. Multiple other construction projects under the CPEC and the Central Asia Regional Economic Cooperation (CAREC) programme are underway.
- Construction of 'Panahgahs' in major cities to provide shelter to the homeless.
- Construction of Nuclear Power Plants near KANUPP site in Karachi, i.e., K-2/K-3 and a power plant at Chashma near Mianwali (C-5).

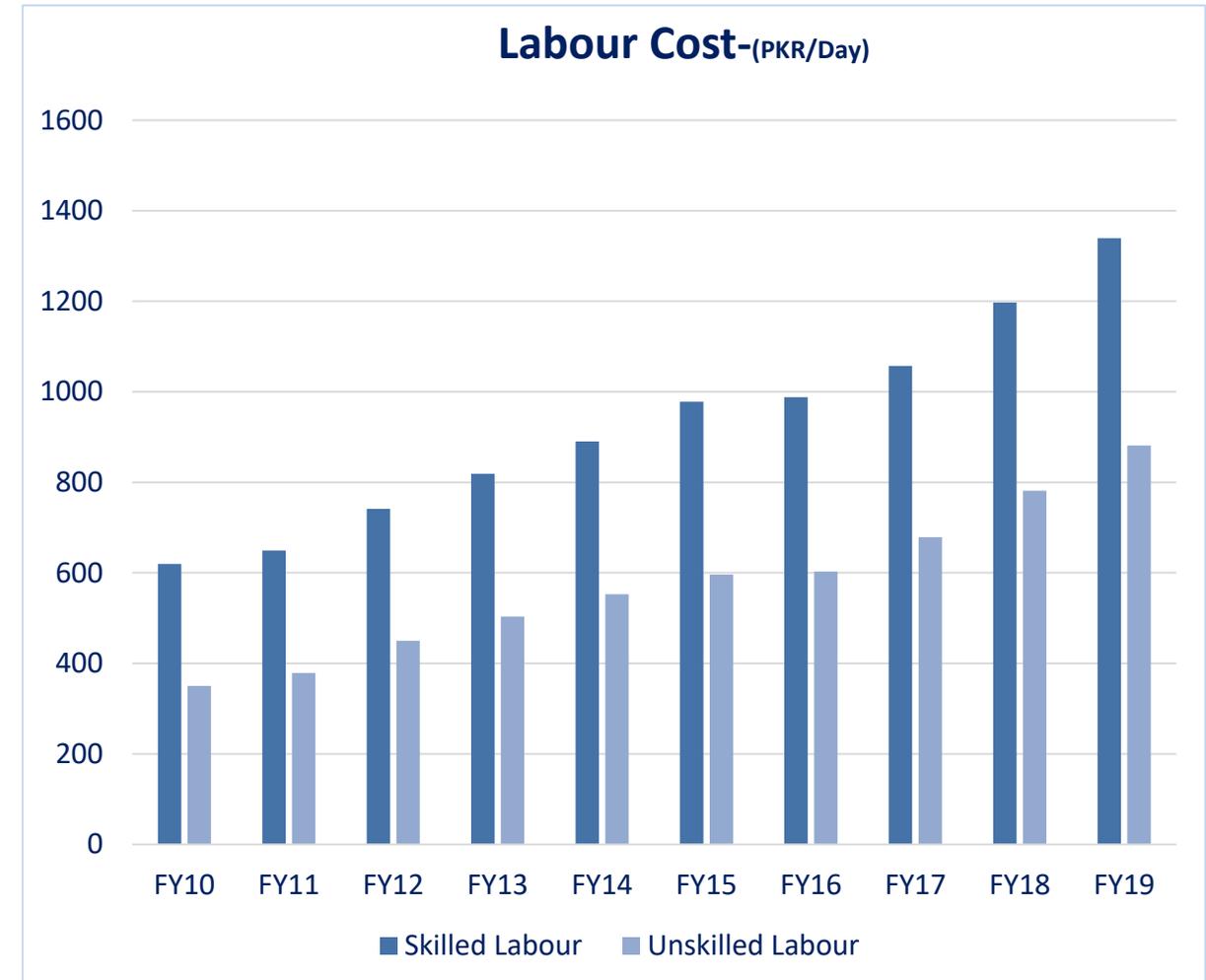




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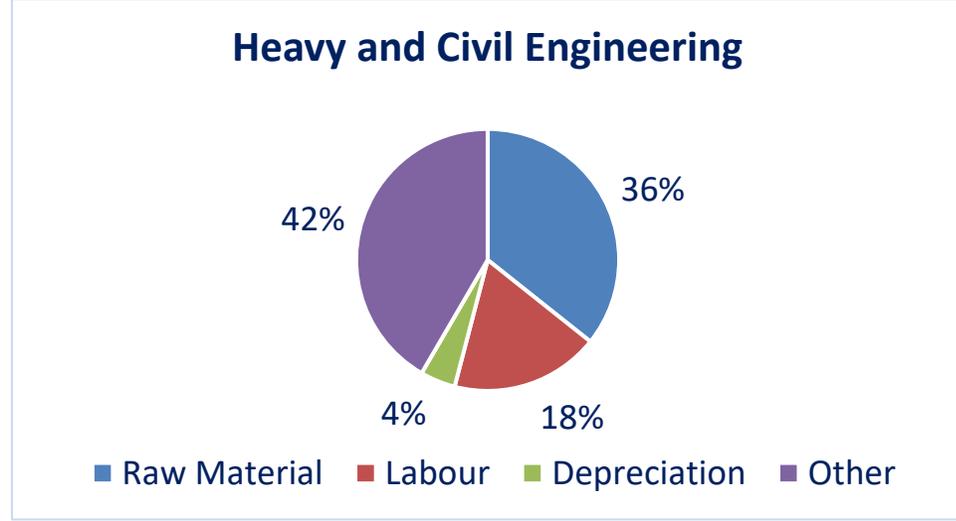
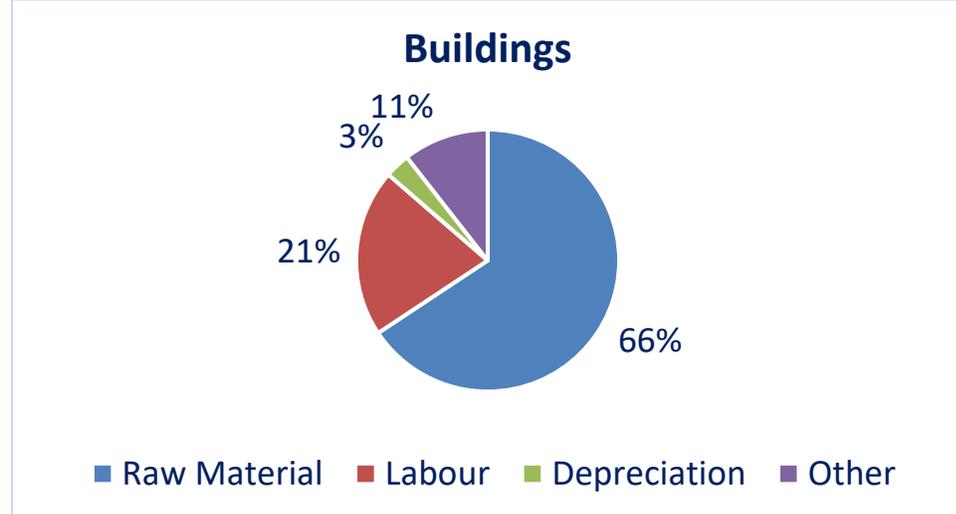
Industry Dynamics - Supply

- Over 10,000 firms are registered with the Pakistan Engineering Council as constructors/operators. However, only ~100 (1%) of them hold the prestigious CA category (no limit) license and High Carbon Steel Technology (HCS), which enables them to be on the pre-qualifying list of approved constructors.
- The requirements of raw material and professional expertise differ and are dependent on the nature of the projects.
- Generally, material cost constitutes a major portion of the cost for construction companies followed by salaries and wages of both technical staff and labour. The basic construction materials like cement and steel are available in abundance locally.
- Construction is a capital intensive business requiring uninterrupted financial backing from banks. The nature of construction work is uneven wherein delays and prolonged deadlines are common. These factors make construction sector high working capital consuming as well as long term debt based sector.



Business Risk

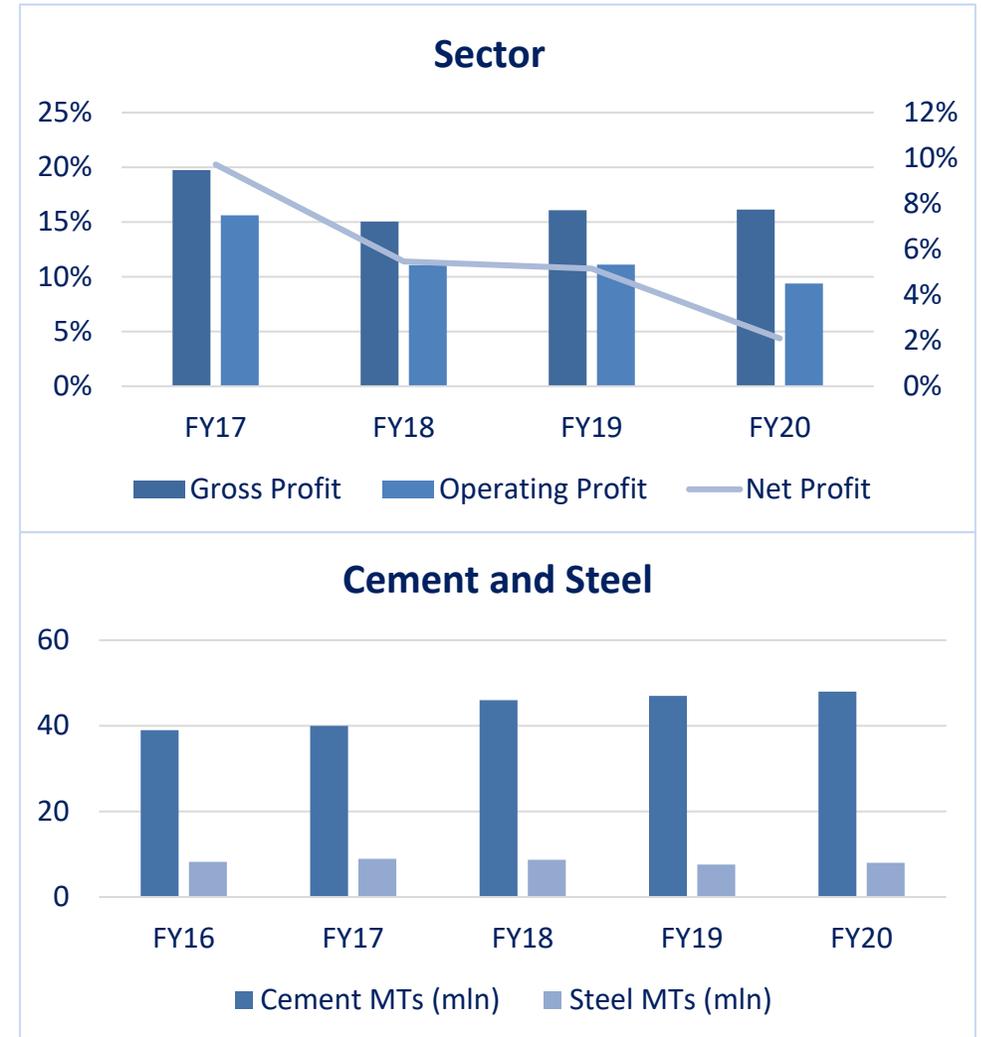
- Raw material is a major chunk in the cost of production of the sector. In the buildings category, raw material accounts for ~66% while ~36% in heavy and civil engineering category. Civil engineering material cost can vary depending up on the type of project, roads to power plants while the basic materials for building construction are cement and steel.
- Labour is a crucial cost element for both however, it accounts for ~21% in the construction of buildings while ~18% in heavy and civil engineering.
- Due to machinery intensive nature of construction, depreciation accounts for ~3% in buildings and ~4% percent in heavy and civil engineering.
- Other costs comprise energy and overheads that do not fall in other three categories. Due to variability of projects under heavy and civil engineering category, energy and frequent overheads cost make up a large portion in cost of construction in heavy and civil engineering (~42%) as compared to buildings (~11%).



Construction

Business Risk

- PSDP spending decreased from PKR ~1,584bln in FY18 to PKR ~1,178bln in FY19 and further decreased to PKR ~1,155bln in FY20. In FY20, the construction sector grew as a whole by ~8.1% as the sector revenues grew from PKR~734bln in FY19 to PKR~794bln in FY20.
- Due to high correlation of sector revenue with PSDP spending, the revenue of sector remained under pressure owing to reduced PSDP spending during past couple of years. However, during 1HFY21 the sector showed positive growth due to increased private investment.
- Prices of major raw materials including cement reduced during FY20 which has helped the sector sustain its gross profit margins during the period. On the other side, rising interest cost put downward pressure on net profit in FY20 as the net profit decreased from ~5% to ~2% during the period.
- Going forward with rising interest rate and increase in prices of raw material, the cost of production of the sector will increase.



Business Cycle



Every construction project has the following 7 stages in its life cycle:

- **Win Contract:** After successful bidding the contract is awarded to the contractor.
- **Mobilization Advance:** Is given to the contractor so that machinery, equipment and labour can be mobilized.
- **Construction Starts:** Within a stipulated time period, as mentioned in the contract.
- **Stages of Completion:** The project is divided into certain number of stages and the contractor is paid after successful completion of each milestone.
- **Delivery:** The project needs to be delivered within an agreed timeframe after which the contractor may accrue damages.
- **Certificate:** When the client is satisfied and there are no pending disputes, a certificate of completion is issued.
- **Retention Money:** Is returned to the contractor after completion of a certain time period after project delivery.

Major Delay Causes with Responsible Entities– Various Delay Categories

| Delay Cause | Category of Delay | Responsible Entity | Delay Criticality Ranking |
|--------------------------------------|-----------------------------------|--------------------|---------------------------|
| Change orders/ directives | Contract Related Delays | Owner | 1 |
| Labor productivity issues | Labor Related Delays | Contractor | 2 |
| Poor site management and supervision | Management/ Administrative Delays | Contractor | 3 |
| Inspections/ Audits | Construction Site Related Delays | Contractor | 4 |
| Poor cost estimation & control | Management/ Administrative Delays | Contractor | 5 |

- The biggest delay in the construction deadline is caused by the owner. Any changes in design or orders could delay or even halt the construction activity all together.
- Availability of skilled labour is also an issue for the contractor especially in rural areas. The second most deteriorating reason for any project is poor cost estimation and management.

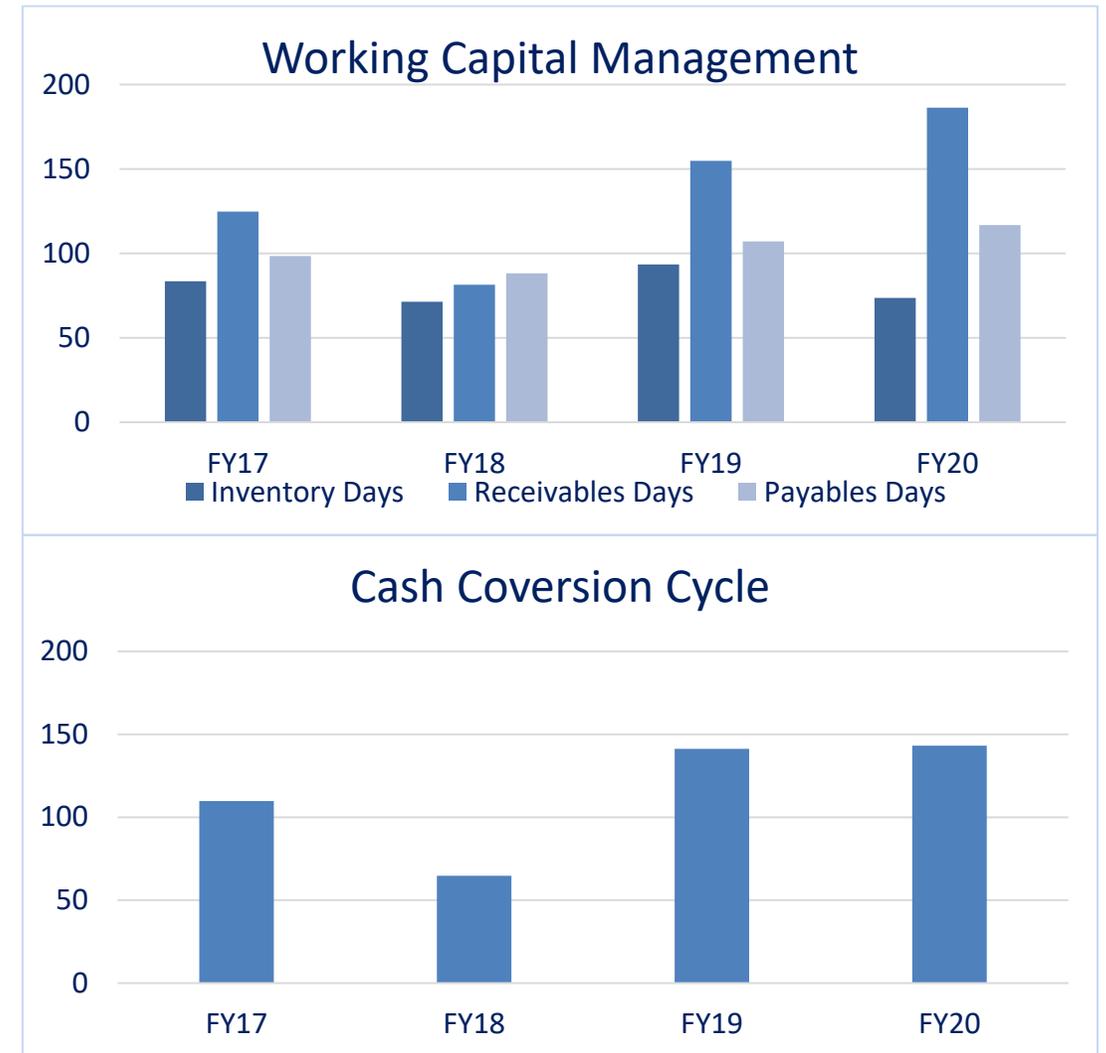
Categorical Delay Criticality Ranking with Responsible Entities

| Category of Delay | Major Responsible Entity | Delay Criticality Ranking |
|-----------------------------------|--------------------------|---------------------------|
| Design related delays | Consultant | 1 |
| Financial/ Economic Delays | Owner | 2 |
| Contract related delays | Owner | 3 |
| Construction site related delays | Contractor | 4 |
| Subcontracted work related delays | Contractor | 5 |

- After design related delays, unavailability of funds is the most crucial element. But due to the recent COVID-19 pandemic, the construction sector came near to a halt and construction activity nearly ceased. Subcontracted or third party contractors are also a major element. Their profitability is not directly tied towards the project or contract, hence delays in regarding subcontractors or third party related work are more frequent.
- Although time delay and cost overrun are very common in construction projects, these can be reduced or eliminated by adopting a proper performance monitoring mechanism and control system that will be integrated with all the key aspects and activities of each phase of the construction project.
- Better communication among all the stakeholders of the projects with a clear understanding of the project success criteria and KPI leads to the successful completion of the project without delay and cost overrun but providing the best quality.

Financial Risk-Working capital

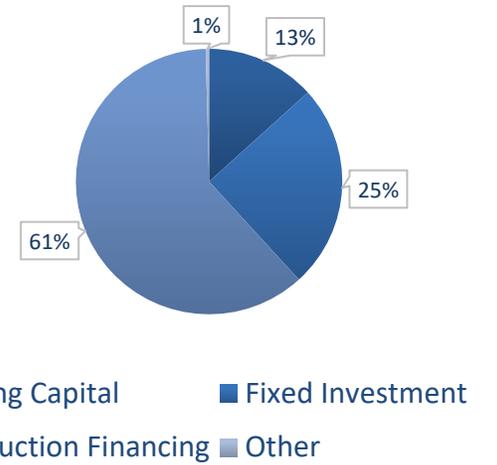
- The sector’s cash conversion cycle remained almost stable in FY20 at ~143 days from ~141 days in FY19. Construction sector is highly correlated to PSDP expenditure. Decline in PSDP spending in FY19 caused cash conversion cycle to spike.
- Inventory days decreased to ~74 days in FY20 (~93 days FY19). Meanwhile, receivable days increased significantly in the past couple of years from ~81 days in FY18 to ~186 days in FY20 due to slowdown in construction activities and delayed payments on government projects. The woes of the sector further increased due to COVID-19 lockdown.
- Increased working capital requirements of the sector are partially financed by increasing payables, as the payable days of the sector also went up from ~88 days in FY18 to ~117 days in FY20.
- The net impact of increased receivable days has largely been off-set by the hike in payable days keeping cash conversion cycle largely unchanged at ~143 days in FY20 (~141 days in FY19).



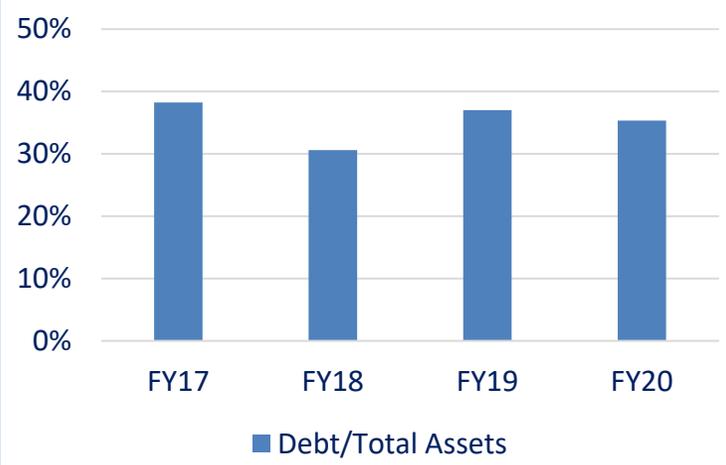
Financial Risk - Borrowings

- The sector’s borrowings stood at PKR~131bln in FY20 (FY19: PKR~153bln) showing a decrease of ~14.3% YoY. As of Feb-21, borrowing relating to construction activities summed up to PKR~130bln (PKR~124bln in Feb-20) registering a growth of ~4.8% YoY. Around PKR~117bln pertained to borrowings of Large Institutions and PKR~13bln to Small & Medium Enterprises (SME) as at Feb-21. Keeping other factors constant, an increase of 100 bps will adversely affect the net profit margins of the sector by PKR~1.3bln and vice versa.
- The machinery required for large construction projects is mostly imported. With international trade slowing down amidst COVID-19 pandemic, the growth in long term borrowing and fixed investment is below expectations, however with promising steps taken by the government and positive affect of vaccines, financing for fixed investment is expected to rise again.

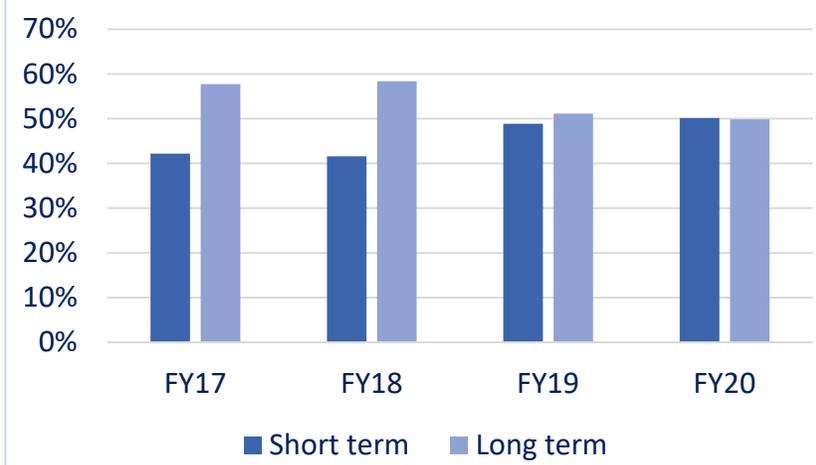
Borrowing Mix (Dec-2020)



Gearing Ratio

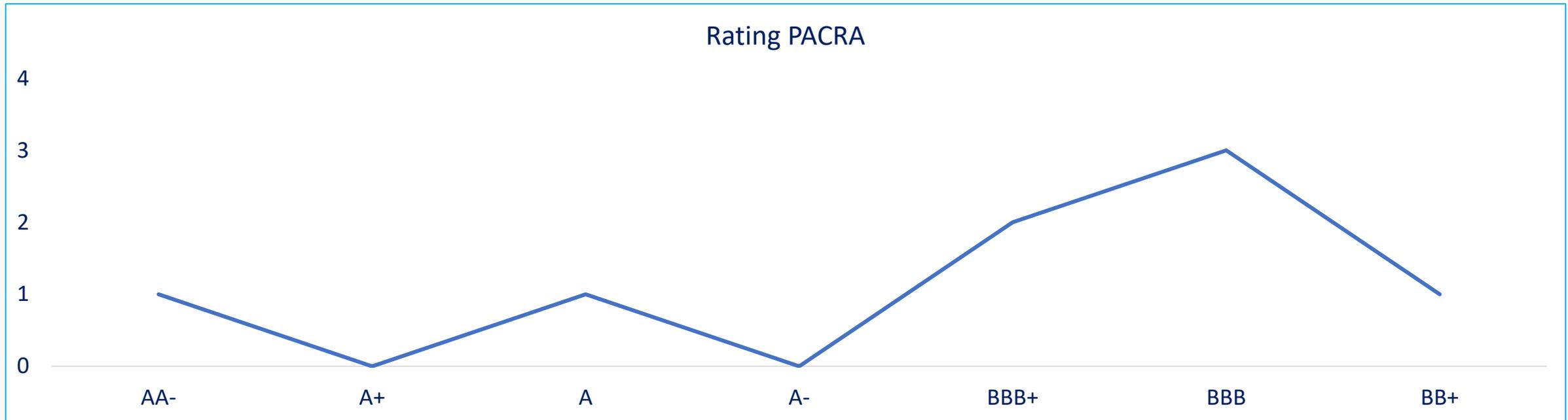


Long term and Short term Borrowing



Rating Curve

- PACRA rates eight players in the construction sector.
- PACRA rating bandwidth of the Sector ranges from BB+ to AA-.





Construction

SWOT Analysis

- Steady growing demand
- Abundant labour force
- Government Incentives and Support
- Readily available raw materials.
- Increased Government spending

Strengths

- Lack of Technological Innovation
- Highly Impacted by Allied Industries
- Deadlines and Delays

Weaknesses

- Low Barriers to entry
- Possibility of Lockdown
- Exchange rate fluctuations
- Inflation

Threats

- Naya Pakistan Housing Scheme initiative
- Government initiatives
- Lower Capital Gain Tax
- Advancement in Technology

Opportunities

- The Income Tax rates of the construction sector have not changed over the past two years. Fixed income tax rate has been introduced for projects registered under Amnesty scheme.

| Income Tax | | | |
|------------------------------------------|-------------------------------|------------------------------------------------------------------------------------------|-----------------------------------------------|
| | | FY20 | FY21 |
| Small Companies | | 21% | 29% |
| Large Companies | | 21% | 29% |
| Projects Registered under Amnesty Scheme | | | |
| Area | Karachi, Lahore and Islamabad | Hyderabad, Sukkur, Multan, Faisalabad, Rawalpindi, Gujranwala, Sahiwal, Peshawar, Mardan | Urban Areas not specified in adjacent columns |
| For Commercial Buildings | | | |
| Any Size | PKR 250/Sq. feet | PKR 230/Sq. feet | PKR 210/Sq. feet |
| For Residential Buildings | | | |
| Upto 3000 Sq. feet | PKR 80/Sq. feet | PKR 65/Sq. feet | PKR 50/Sq. feet |
| 3000 Sq. feet and above | PKR 125/Sq. feet | PKR 110/Sq. feet | PKR 10/Sq. feet |

Regulatory Environment

- In an effort to boost construction sector, the government has made changes in its incentive scheme for subsidized mark up rates on loans for houses. Previously, individuals who obtain loans from banks to build their homes were offered a subsidized interest rate. The interest rate for 5-marla house was ~5% and for 10-marla house it was ~7%.
- According to the revised scheme, three tiers have been created. To facilitate the participation of microfinance banks, a tier 0 category has been added. Under the scheme, disbursement of financing up to PKR~2mln per housing unit has been added. In view of the fact that MFBs specialize in extension of financing to low income households, it is believed that participation of MFBs will significantly enhance outreach of scheme to these segments.
- In tier 1 category, mark up rates are now ~3% for the first five years and ~5% for the next five years for houses build up to 5 marlas. Previously, they were ~5% and ~7% respectively. This will help to reduce the burden of installments on low income strata of applicants under NAPHDA projects even more. For tier 2, the maximum allowed financing has also been doubled from PKR~3mln to PKR~6mln and for tier 3, from PKR~5mln to PKR~10mln.
- Previously, the requirement for the house to fall under this scheme to be maximum one year old has been waived off till March-23. Further, restriction on first transfer of housing unit and maximum value of housing units have also been removed. Maximum covered area for flats and apartments has been increased whereas, covered area restriction has been removed in case of land based housing units.
- Minimum tenor for housing finance has also been lowered from 10 years to 5 years to facilitate individuals desiring shorter financing periods.

Outlook - Stable

- Construction Sector as a whole had seen diminishing rate of returns. It is considered as one of the most critical sectors of any economy due its impact on allied industries (cement, steel etc.). But the most important factor to consider from the government perspective is the social welfare it delivers to the labour force in the form of earnings.
- Amid low PSDP spending, the construction sector remained under pressure for the past couple of years. The worries of the sector further increased after the COVID-19 lock down imposed by the Government in last quarter of FY20. To increase economic activity, SBP and the Government of Pakistan have introduced a series of measures.
- Construction companies working on Government projects often face delayed payments due to lengthy payment approval process of government departments. Liquidity position of these companies comes under pressure incase of delayed payments.
- Specific construction related package announced by the Government increased the construction activity considerably in 1HFY21. The momentum is likely to be continued in coming period as well, which will bode well for the sector and the overall economy.
- As Pakistan is witnessing a third wave of the COVID-19 pandemic, the possibility of another lockdown may dampen the construction sector to some extent.
- Interest rates are at historically low levels but are expected to increase gradually in the days to come, which would negatively impact the sector's profitability.



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