2018

COMPETITION ASSESMENT OF THE ROAD CONSTRUCTION SECTOR IN PAKISTAN

Competition Commission of Pakistan

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Acronyms

AJK	Azad Jammu & Kashmir
AMA	Anti Monopoly Act, Japan
APL	Attock Petroleum Limited
BOI	Board of Investment
BOT	Build Operate & Transfer
BTL	Bahria Town (Private) Limited
CAP	Constructors Association of Pakistan
CCI	Competition Commission of India
CHPL	Citi Housing (Private) Limited
CPEC	China Pakistan Economic Corridor
DHAI	Defense Housing Authority Islamabad
ECC	Economic Coordination Committee
ECNEC	Executive Committee of National Economic Council
EPA	Environmental Protection Agency
FDI	Foreign Direct Investment
FWO	Frontier Work Organization
GB	Gilgit-Baltistan
GDP	Gross Domestic Product
GHPL	Ghumman Housing (Private) Limited
GOP	Government of Pakistan
HRL	Habib Rafique (Private) Limited
IPDF	Infrastructure Project Development Facility
JFTC	Japan Fait Trade Commission
JV	Joint Venture Agreement
KP	Khyber Pakhtankhwa
KPPRA	Khyber Pakhtunkhwa Public Procurement Regulatory Authority
KSCC	Kerala State Construction Corporation Limited
NCL	National Construction Limited
NEFT	NLC Express Freight Train
NESPAK	National Engineering Services Pakistan Private Limited

NHA	National Highway Authority
NLC	National Logistic Cell
NUML	National University of Modern Languages
OFT	Office of Fair Trading, UK
PARCO	Pakistan Arab Refinery Company Limited
PEC	Pakistan Engineering Council
PMB	Polymer Modified Bitumen
PPP	Public Private Partnership
PPPA	Public Private Partnership Authority
PPRA	Public Procurement Regulatory Authority
PSDP	Public Sector Development Program
PSQCA	Pakistan Standard & Quality Control Authority
PWD	Public Works Department
RFP	Request for Proposal
SOEs	State Owned Enterprises
TFEU	Treaty on the Functioning of the European Union

Foreword

The Competition Commission of Pakistan (CCP) regularly conducts competition assessment studies in order to better understand the functioning of markets and to identify competition vulnerabilities and issues in key sectors of Pakistan's economy. The assessments examine barriers to effective competition and government interventions that may distort competition and obstruct a level playing field in the relevant sector. Thus far studies have been conducted on many important sectors such as fertilizer, private healthcare, sugar, banking, cooking oil and aviation among others.

Developed roads, highways, bridges and ports play a pivotal role in the economic development of a country. The road construction/infrastructure sector has significant interconnectedness through backward and forward connections with other sectors of the economy. A well-developed road infrastructure sector generates employment opportunities, creates links between the farmers and the markets, boosts trade and helps in poverty reduction. Moreover the rise in the construction and engineering services increases the demand for skilled, semi-skilled and unskilled labour and is, therefore, a source of income generation, both in the formal and the informal sector.

The research study 'Competition Assessment of Road Construction Sector in Pakistan' aims to provide valuable information and insight to all the relevant stakeholders and policy makers about the market structure, the regulatory framework, and the barriers to effective competition in the road construction sector. On the basis of the competition issues the study proposes recommendations to foster competition in the sector.

The report has been prepared by Ms. Maryam Zafar, Deputy Director, Ms. Maliha Quddus, Deputy Director and Ms. Fatima Shah, Management Executive of CCP, and finalized by the Competition Policy and Research Department under the supervision of Dr. Muhammed Saleem, Member, Competition Policy and Research Department of CCP. The Commission gratefully acknowledges the contribution of the various stakeholders who provided valuable information and insight into the sector.

Vadiyya Khalil

Chairperson

Executive Summary

The Competition Commission of Pakistan (the Commission) carried out the study 'Competition Assessment of the Road Construction Sector in Pakistan' under Section 28(1)(b) of the Competition Act (the Act), which mandates the Commission to carry out *market studies to promote competition in all spheres of commercial economic activity*. The objective of the study is to examine and evaluate the road construction sector in Pakistan, examine the market players including private firms and State Owned Enterprise (SOEs), regulatory framework, role of implementing agencies, barriers to entry, and to assess whether there is *a level playing field* in the sector. Based on the analysis the study proposes recommendations to foster competition in the sector.

The infrastructure sector plays a pivotal role in the economic development of a country. In Pakistan road transportation is the preferred mode for movement of both people and goods. In 1947, Pakistan inherited 50,367 km of roads out of which 9,809 km roads were of high type and 40,558 km of low type. Over time this network has expanded and during year 2017, the total length of roads, including that of Azad Jammu and Kashmir (AJK) and Gilgit-Baltistan (GB), have increased to 264,401 thousand km which include both high and low type roads.

After independence most of the major road construction work was undertaken by foreign donor agencies and some was carried out by the SOEs in the sector. However in the last 25 years the domestic construction sector has stepped up due to conducive government policies. In the recent years the advent of CPEC seems to be a game changer. Under the CPEC umbrella road construction projects are funded both by the Government of Pakistan under PSDP as well as by the Government of China.

The road construction market is comprised of the Government agencies (federal/provincial/local) on the demand side. The supply of services is provided by SOEs, private firms and foreign firms. The market players interact through the competitive bidding process where PPRA Rules and PEC *Construction and Operation of Engineering Works Bye-laws, 1987* apply. The implementing agencies include National Highway Authority (NHA) at the federal level, responsible for construction, repair/maintenance and operation of national highways and motorways and the provincial Works Departments/district governments at the provincial and local government level.

The competition assessment of the sector reveals various barriers to competition which are structural, regulatory and strategic in nature. The road construction requires considerable financial and human capital. Projects floated by NHA under CPEC road construction projects requires constructors to have a portfolio of projects worth Rs 8-9 billion, whereas most local firms fall well short and hence are barred from the market. The SOEs are exempted from income tax and bid security. This preferential treatment to SOEs gives a competitive advantage to them over private firms. The foreign firms who wish to invest in the sector can do so through a joint venture with a local firm, the PEC Bye-Laws demand that at least 30% of the investment be made by domestic firms. However, it has been observed that sometimes these foreign partners stay dormant and the project execution is done by the local firm. This is a violation of the PEC Bye Laws and it adversely affects the quality of the projects. The Chinese constructors are capable of bidding below PC-1, and win contracts. Additionally, they are large state owned enterprises, enjoying tax exemptions whereas the private local firms do not receive any preferential treatment. CPEC projects undertaken by Chinese firms are often subcontracted/sublet to small local contractors. This results in poor quality projects due to the small firms' inadequacy and no stringent check on subcontracting by the implementing agencies. Issues of possible collusion between the implementing agencies and the bidders, and bid rigging by the contractors also came to light during the study.

The Khyber Pakhtunkhwa (KP) provincial government has made amendments to *KP Procurement of Goods, Works and Services Rules, 2014 (Amended 2016)*; and *KP Public Private Partnership Act, 2014 through KP Public Private Partnership (Amendment) Act, 2017 ('KP PPP Act')* passed on 14th April, 2017. These amendments have raised potential competition concerns. *Rule 3(2)(c)* of the *KP Procurement of Goods, Works and Services Rules, 2014 (Amended 2016)* acquires legal cover under *Khyber Pakhtunkhwa Public Procurement Regulatory Authority (Amended) Act, 2016 (KPPPRA) Act, Section 33(2)(b)* which exempts government organizations/public sector procuring entities from open competitive bidding and can be directly awarded contracts. Similarly the *KP Public Private Partnership Act, 2014 through KP Public Private Partnership (Amendment) Act, 2017 ('KP PPP Act')* passed on 14th April, 2017, *Section 28A* amendment is anticompetitive as, according to it, the foreign and domestic SOEs can receive road construction projects without the process of competitive bidding.

On the basis of the competition assessment of the road construction sector in Pakistan the study proposes recommendations to enhance competition, efficiency and quality in the sector. The projects of motorways and highways maybe broken down into smaller packages to allow greater participation by smaller constructors. There should be a monitoring mechanism by the implementing agencies where smaller local construction firms enter into joint ventures with foreign firms (in particular Chinese firms), where the later remain sleeping partners. Similarly there should be a proper mechanism in place by the implementing agencies to check subcontracting by the concessionaires to very small local contractors as it adversely affects the quality of the project. Where there is apparent collusion between the implementing agency and the contractors, and bid rigging by the contractors the Commission under section 3 and or 4 of the Act, may take necessary enforcement action. The SOEs have income tax and bid security exemption while competing for road construction projects floated by the federal and or the provincial government. It is recommended that all firms, private or public should be given equal treatment. Therefore either these exemptions to SOEs may be annulled. Alternatively where these exemptions to SOEs continue, the private sector should be given a comparable cost margin at bid submission stage. Similarly under CPEC the Chinese firms receive exemptions on import duties and income tax therefore the local constructors may also be given import duty relief and other tariffs to compete with Chinese firms. The KP government should review the above mentioned amendments to *KP Procurement of Goods, Works and Services Rules, 2014 (Amended 2016)* and *KP Public Private Partnership Act, 2014 through KP Public Private Partnership (Amendment) Act, 2017 ('KP PPP Act')* passed on 14th April, 2017. The Commission under Section 29(b) may issue a policy note(s) on the subject matter. Under Section 28(e) and 29(a) of the Act, the Commission must engage in competition advocacy. Regulators and implementers of road construction sector, such as NHA, PEC, PPRA at the Federal level and the respective regulators and implementers at the provincial level must have knowledge about the competition law in general and the Act in particular to ensure competitiveness, efficiency and transparency in the road construction sector in Pakistan.

Chapter 1: Background and Introduction to Road Construction Sector

1.1 Introduction and Historical Development of the Sector

1. Developed roads, highways, bridges and ports play a pivotal role in the economic development of a country. The road construction/infrastructure sector has significant interconnectedness through backward and forward connections with other sectors of an economy. The growth and development of other sectors of the economy depend considerably on the development of a sound infrastructure of roads and ports. During the year 2016-17 the GDP showed 5.28 percent growth. The services sector contributed 59.59 percent in the GDP. Transport and Communication[1], a sub sector of services sector, contributed 13.27 percent in the GDP and 22.3 percent in the services sector. It grew by 3.94 percent during the year 2016-17.[2] The transport and communication sector contributes directly and indirectly to the economic activity of Pakistan. A well-developed road infrastructure generates employment opportunities, create links between the farmers and the markets, boosts trade and helps in poverty reduction.[3] The construction and engineering services sector increase the demand for skilled, semi-skilled and unskilled labour and is, therefore, a source of income generation, both in the formal and the informal sector.[4]

2. In Pakistan road transportation is the preferred mode of transportation for the movement of goods as well as people. Road transportation is preferred over rail and air transportation because it is more economical and time saving. In the remote and rural areas road transportation is the only available form of transportation for people and freight movement. At the time of independence in 1947, Pakistan inherited 50,367 km of roads out of which 9,809 km roads were of high[5] type and 40,558 km was of low type.[6]

3. During the period of 1947 to 1971, there were very few private developers/constructors in Pakistan. The government established Indus Highway Board in 1971 with the objective to construct, maintain, repair and plan highways. At that time the priority of the government was to link Karachi, the port city with major economic activity to the Northern parts of the country.[7] In 1978 the Government of Pakistan (GOP) decided to

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[1] Transport and Communication includes road infrastructure including CPEC road projects, Pakistan Railways, Pakistan International Airlines, ports and shipping and in Communication ICT and various other communication networks.

[2] Pakistan Economic Survey 2016-17, Overview of the Economy

[3] ibid

[4] *Role of Construction Sector in Economic Growth: Empirical Evidence from Pakistan Economy*, http://civil.neduet.edu.pk/ICCIDC-I/Conference%20Proceedings/Papers/030.pdf

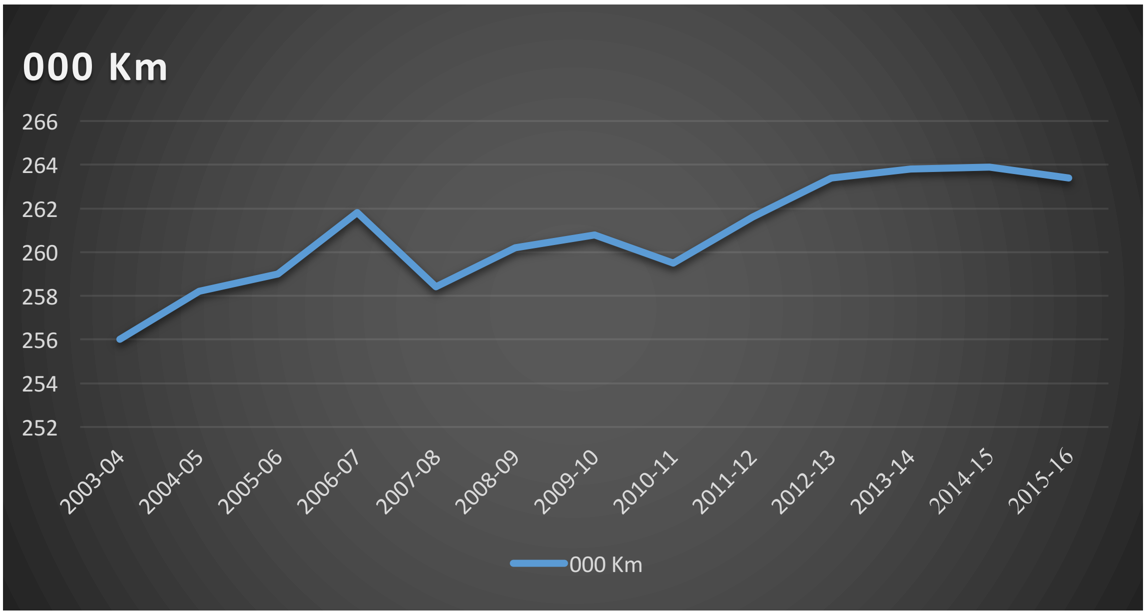
[5] Road network in general is of two types-high type which consists of highways, motorways, intercity and intra city roads with high quality bitumen. The low type roads are farm to market roads for rural urban mobility- Planning and Development Department, Government of Punjab

[6] Transport and Communication, Pakistan Bureau of Statistics, http://www.pbs.gov.pk/sites/default/files/50_years_statistics/vol1/10.pdf

[7] Important National Highways include N-5, Karachi-Torkham, N-35 also known as the Karakorum Highway, Hassanabdal-Gilgit-Khunjrab, N-25, Karachi-Chaman, etc.

federalize five important inter provincial roads network called 'National Highways'. The Indus Highway Board was upgraded to National Highway Board in order to monitor the development and maintenance of these federalized roads by Provincial Highways Departments. In 1991, the National Highway Authority (NHA) replaced National Highway Board through an Act of the Parliament. In 2017, the total length of roads, including that of Azad Jammu and Kashmir (AJK) and Gilgit-Baltistan (GB), have increased to 264,401 thousand km which include both high and low type roads.[8] Pakistan stands at number 21 in comparison with other countries in the total road network.[9]The trend of the road network is indicated in *Figure 1* below. The graph shows a gradual increase in the road network (thousand, km) from 2003-04 to 2015-16, indicating an increase in the road infrastructure development.

Figure 1: Road Network Trend 2003-04 to 2015-16 (000 Km)



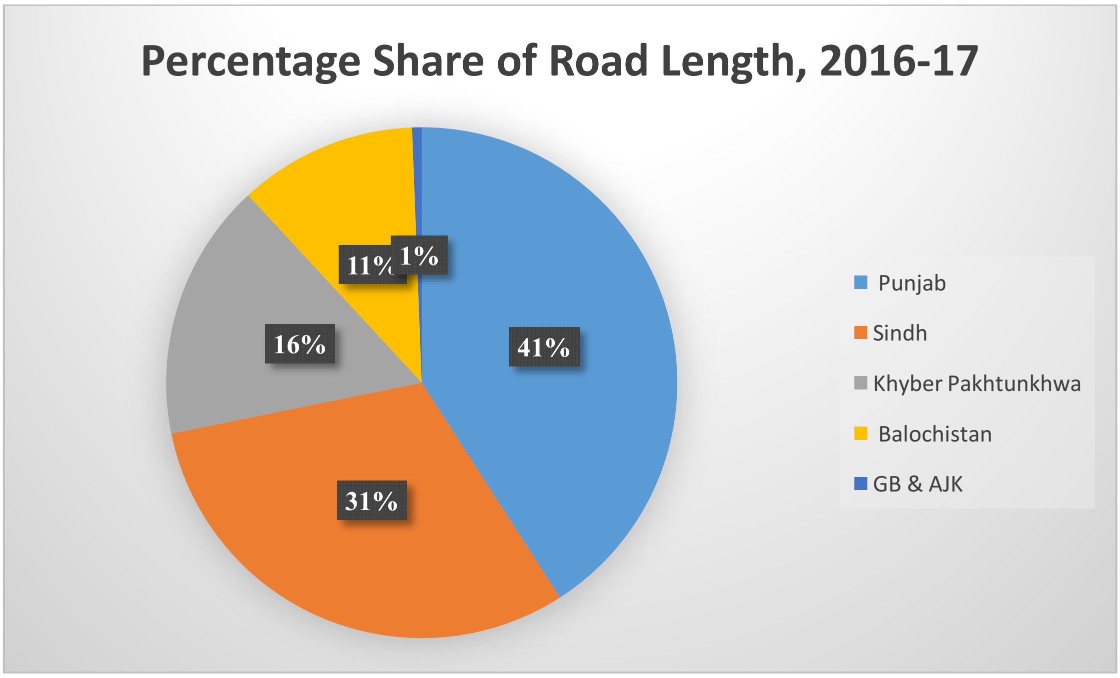
Source: Pakistan Economic Survey 2015-16

The Pie Chart below shows the percentage share of each province in the total road length of Pakistan. Punjab has the highest share that is 41% followed by Sindh 31%, KP 16%, Balochistan 11%, and GB 1%.

8 Pakistan Economic Survey 2016-17, Transport and Communication

9 CIA Factbook; available at https://www.cia.gov/library/publications/the-world-factbook/geos/pk.html

Figure 2: Percentage Share of Road Length, 2016-17



Source: Pakistan Economic Survey 2016-17

Table 1: Percentage Share (Provinces) of Road Length

Fiscal year	Total (km)	High Type(km)	Low Type(km)
2000-01	249,972	144,652	105,320
2001-02	251,661	148,877	102,784
2002-03	252,168	153,225	98,943
2003-04	256,070	158,543	97,527
2004-05	258,214	162,841	95,373
2005-06	259,021	167,530	91,491
2006-07	259,189	172,827	86,362
2007-08	258,350	174,320	84,030
2008-09	260,350	176,589	81,761
2009-10	260,760	180,910	79,850
2010-11	259,463	180,866	78,597
2011-12	261,595	181,940	79,655
2012-13	263,415	182,900	80,515
2013-14	263,755	184,120	79,635
2014-15	263,942	185,063	78,879
2015-16 (Jul-Mar) E*	263,356	187,807	75,549

* *Estimated*

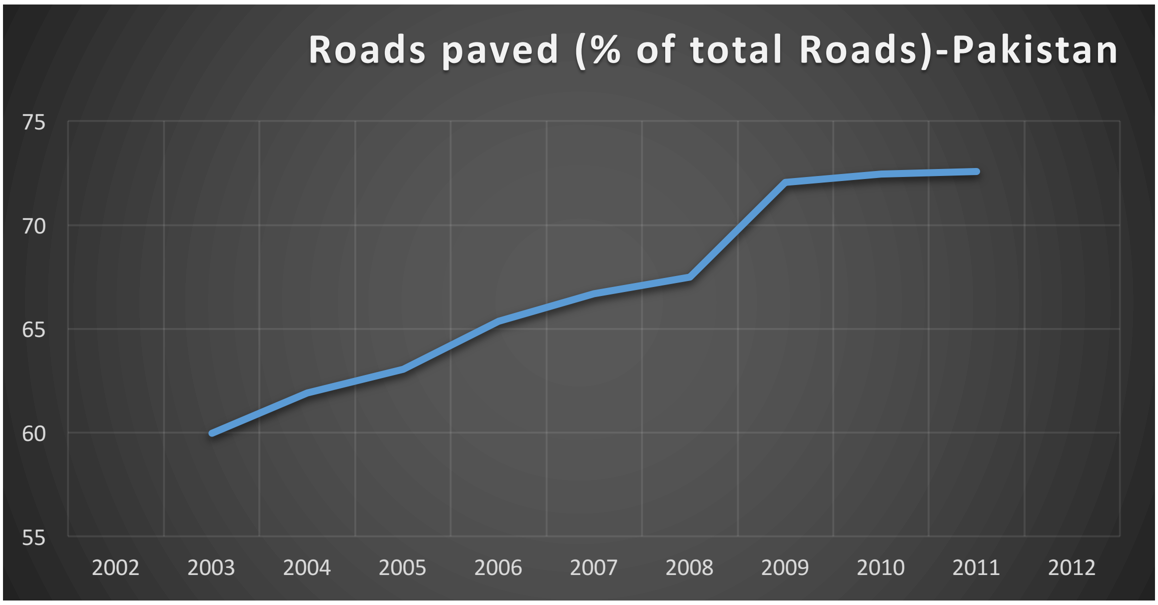
Source: National Transport and Research Centre

Table 1 gives a snapshot of the total road network in kilometers in Pakistan, including both high and low type roads. The share of high type roads in the total road network has been steadily growing whereas the share of the low type roads has been constantly decreasing.

4. NHA works under Ministry of Communications and is responsible for the development, repair, operation and maintenance of all national highways, motorways and strategic roads[10] which have been entrusted by the federal/provincial government or any other authority concerned. However, for the development of local roads and bridges, including intercity and intra city road networks, the respective provincial governments and local development authorities are responsible. Funds are released by the Federal Government under Public Sector Development Program (PSDP) for the construction, repair and maintenance of roads infrastructure. The provincial governments also allocate funds for road construction/infrastructure and the funds are delivered to the respective departments.

5. Figure 3 below shows the percentage of roads paved out of the total number of roads in Pakistan. Paved roads are those surfaced with crushed stone (macadam) or hydrocarbon binder or bituminized agents, with concrete or with cobblestones, as a percentage of all the country's roads measured in length. The above graph can be correlated with *Table 1*, which shows increase in the network of high type roads out of the total road network in Pakistan.

Figure 3: Roads Paved in Pakistan, as Percentage of Total Roads



Source: World Bank World Development Indicators

6. There was a change in government policy during 1991 which encouraged development of the domestic construction sector.[11] In order for the domestic sector to develop the

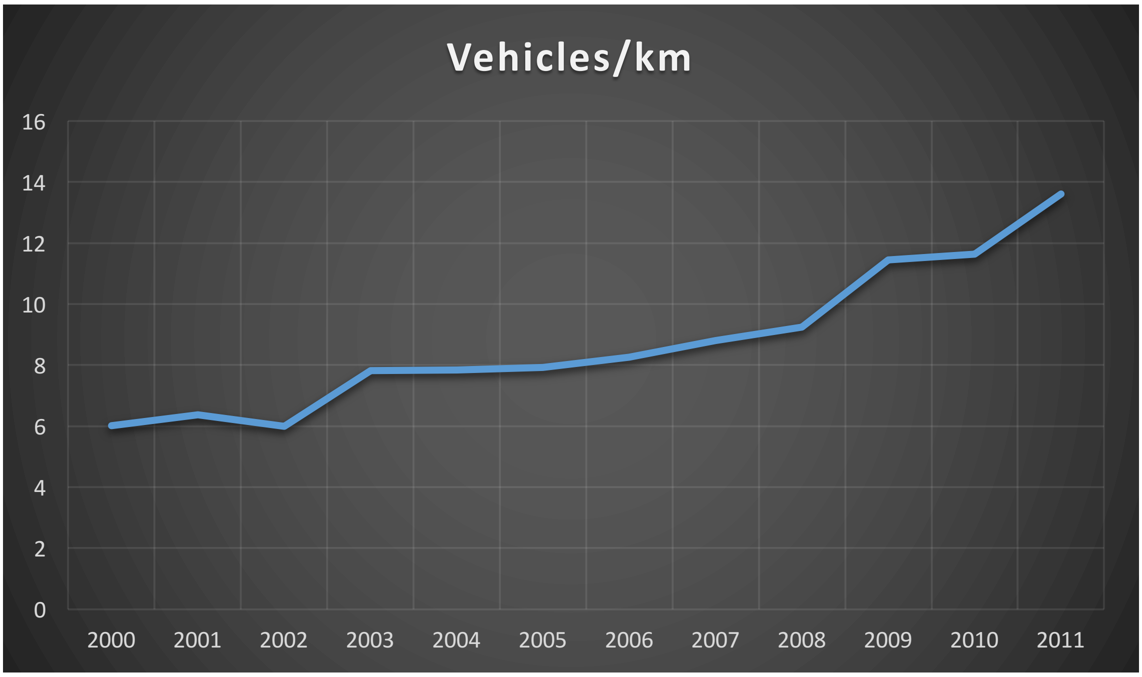
[10] Roads constructed close to the border areas, strategically significant for the movement of freight and people and national security

[11] Before the 1980's there were not many private players in the road construction sector, strategically significant projects were undertaken by FWO such as the Karakorum Highway many other projects were foreign funded.

necessary capabilities and confidence, more difficult projects were awarded to domestic construction sector. In recent years, the private sector has played an important role in road construction, in particular the construction and repair of motorways in Pakistan. Under the Public Private Partnership (PPP) the project financing and risk is borne by the private firm on Build Operate and Transfer (BOT) mechanism. Under BOT, the private firm is authorized by the NHA to collect toll and any other revenue for a specified period. PPP is an efficient and economical way to construct and maintain roads and highways.[12] NHA under PPP has awarded five projects amounting to Rs. 144 billion, higher than the average annual Foreign Direct Investment (FDI) in Pakistan.[13]

7. Figure 4 shows a time series data on the number of vehicles per kilometer of roads in Pakistan. The graph shows a positive trend line meaning that the number of vehicles per kilometer of roads has increased over the given time period from 2000 to 2011. The vehicles include cars, buses, and freight vehicles but do not include two wheelers. Roads refer to motorways, highways, main or national roads, secondary or regional roads, and other roads.[14]

Figure 4: Vehicles per Km, 2000-2011



Source: World Bank World Development Indicators

8. In 2014, the Government of Pakistan (GOP) and Government of People's Republic of China jointly assumed a massive project worth USD 55 billion, known as the China-Pakistan Economic Corridor (CPEC). Under the CPEC umbrella, various energy and infrastructure projects have been initiated to enhance regional connectivity, investment

[12] Primary data, meeting with National Highway Authority (NHA)
[13] Pakistan Economic Survey 2016-17
[14] A motorway is a road specifically designed and built for motor traffic which separates the traffic flowing in opposite directions.

opportunities, human resource development, and trade.[15] According to Ministry of Planning Development and Reform, 75% of these projects are in the form of investment and the remaining 25% are financed through loans from the Government of People's Republic of China. Through various extensive trade routes connecting the Xinjiang province in western China to Central Asia and Arabian Sea via Pakistan,[16] this initiative is also expected to significantly contribute to the rise in development of road infrastructure projects in Pakistan. NHA has been authorized to plan and develop the highways and motorways under the CPEC umbrella.[17] Under CPEC, NHA has undertaken the development of highways and motorways which include the development of; Western Alignment network of highway via Quetta- Gwadar with total distance of 2,473 Km; Central Alignment highway via D.G Khan-Gwadar with total distance of 2,616 Km; and the Eastern Alignment via motorways-Gwadar with total distance of 2,692 Km.

Table 2: Estimated Length of Roads in Provinces, 2012-13- 2016-17 (Kms)

Estimated length of Roads in Provinces (kms)							
Years	**Category**	**Punjab**	**Sindh**	**KP**	**Balochistan**	**GB & AJK**	**Total**
2012-13	**Total**	**107,805**	**81,385**	**42,980**	**29,655**	**1,590**	**263,415**
	Low type	33,090	24,685	13,140	20,525	470	91,910
	High type	74,715	56,700	29,840	9,130	1,120	171,505
2013-14	**Total**	**107,973**	**81,493**	**43,035**	**29,692**	**1,592**	**263,755**
	Low type	32,729	24,415	12,996	9,030	465	79,635
	High type	75,214	57,078	30,039	20,662	1,127	184,120
2014-15	**Total**	**107,992**	**81,543**	**43,072**	**29,742**	**1,593**	**263,942**
	Low type	32,428	24,215	12,846	8,930	460	78,879
	High type	75,564	57,328	30,226	20,812	1,133	185,063
2015-16	**Total**	**108,085**	**81,630**	**43,117**	**29,785**	**1,595**	**264,212**
	Low type	31,255	23,417	12,230	8,560	458	76,020
	High type	76,830	58,213	30,787	21,225	1,137	188,192
(July-March)							
2015-16	**Total**	**107,718**	**81,624**	**42,945**	**29,490**	**1,579**	**263,356**
	Low type	30,901	23,415	12,320	8,460	453	75,549
	High type	76,817	58,209	30,625	21,030	1,126	187,807
2016-17	**Total**	**108,155**	**81,681**	**43,151**	**29,817**	**1,597**	**264,401**
	Low type	31,270	23,425	12,336	8,580	459	76,070
	High type	76,885	58,256	30,815	21,237	1,138	188,331

Source: Pakistan Economic Survey, 2016-17

Table 2 shows the total length of road in kilometers in each province from 2012-13 to 2016-17. The total length of roads in each province is the sum of high type and low

[15] http://cpec.gov.pk/introduction/1
[16] http://cpec.gov.pk/map-single/1
[17] ibid

type roads.

1.2 PSDP Allocations to the Sector

9. The PSDP planned allocation (2012/13-2017/18) in transport and communication within the infrastructure sector development is given in *Table 3*.[18] It is pertinent to note that transport and communication has the largest share in the PSDP allocation.

Table 3: PSDP Allocation to Transport and Communication Sector, 2012-13-2017-18

	Allocation (Rs. Billion)	Share (percentage)
National Program	1,581	23
Federal Program	996	33
Provincial Program	584	15

Source: 11th Five Year Plan, Ministry of Planning, Development & Reform

1.3 Rationale of Study

10. The Commission is mandated under Section 28(1)(b) of the Act to carry out '*market studies to promote competition in all spheres of commercial economic activity*'. The road construction/infrastructure research study has been undertaken to analyze the state of competition in the road construction sector and to provide recommendations in order to make the sector more competitive.

1.4 Objective of the Study

11. The objective of this study is to examine and evaluate the road construction/infrastructure sector in Pakistan. To critically evaluate the regulatory framework, market players and the level of competition in the sector and to assess the likelihood of any anticompetitive practices such as abuse of dominance, cartelization or bid rigging in the sector. It is also pertinent to establish whether there is a level playing field for all players in the road construction sector, regardless of their status being state owned or privately owned.

1.5 Significance of the Study

12. The road construction/infrastructure sector is an important sector of Pakistan's economy and a source of income generation for millions of skilled, semi-skilled and unskilled labour.[19] In the national outlay, the Transport and Communication sector under the infrastructure sector development receives the highest share in PSDP. In this backdrop, the Commission, through this study, aims to:
    - Assess the level of competition in this sector;

[18] The percentage share are of the total PSDP objective.
[19] ibid

- Highlight the areas for enforcement action (in case of anticompetitive practices);
- Provide recommendations to improve competition in the sector;
- Issue policy notes in case of presence of any governmental policies that impede competition; and
- For the general public to understand the dynamics of this sector.

1.6 Methodology

13. For the purposes of data collection and evaluation, both primary and secondary data sources have been used in this study. Secondary data has been collected from the official documents and websites of Planning Commission, Pakistan Engineering Council (PEC), National Engineering Services Pakistan (Pvt.) Ltd (NESPAK), NLC, FWO, NHA, Infrastructure Project Development Facility (IPDF), bidding documents of Public Procurement Regulatory Authority (PPRA), Pakistan Economic Survey 2016-17, internal documents of the Commission and through various research publications on Pakistan's road construction sector. Primary data has been collected through interviews and meetings with both the government agencies and the private sector firms, operating in road construction sector in Pakistan. These include:

i. Planning Commission (transport and communications)
ii. National Highway Authority (NHA)
iii. Infrastructure Project Development Facility (IPDF)
iv. Pakistan Engineering Council (PEC)
v. Matracon Pakistan (Private) Limited
vi. Sachal Engineering Works (Pvt.) Limited
vii. Frontier Works Organization (FWO)
viii. National Logistics Cell (NLC)
ix. Descon Engineering Limited
x. National Engineering Services Pakistan (Pvt.) Limited (NESPAK)
xi. Constructors Association of Pakistan (CAP)
xii. Khyber Pakhtunkhwa Public Procurement Regulatory Authority (KPPRA)
xiii. Khyber Pakhtunkhwa Contractors Association
xiv. Public Procurement Regulatory Authority (PPRA)

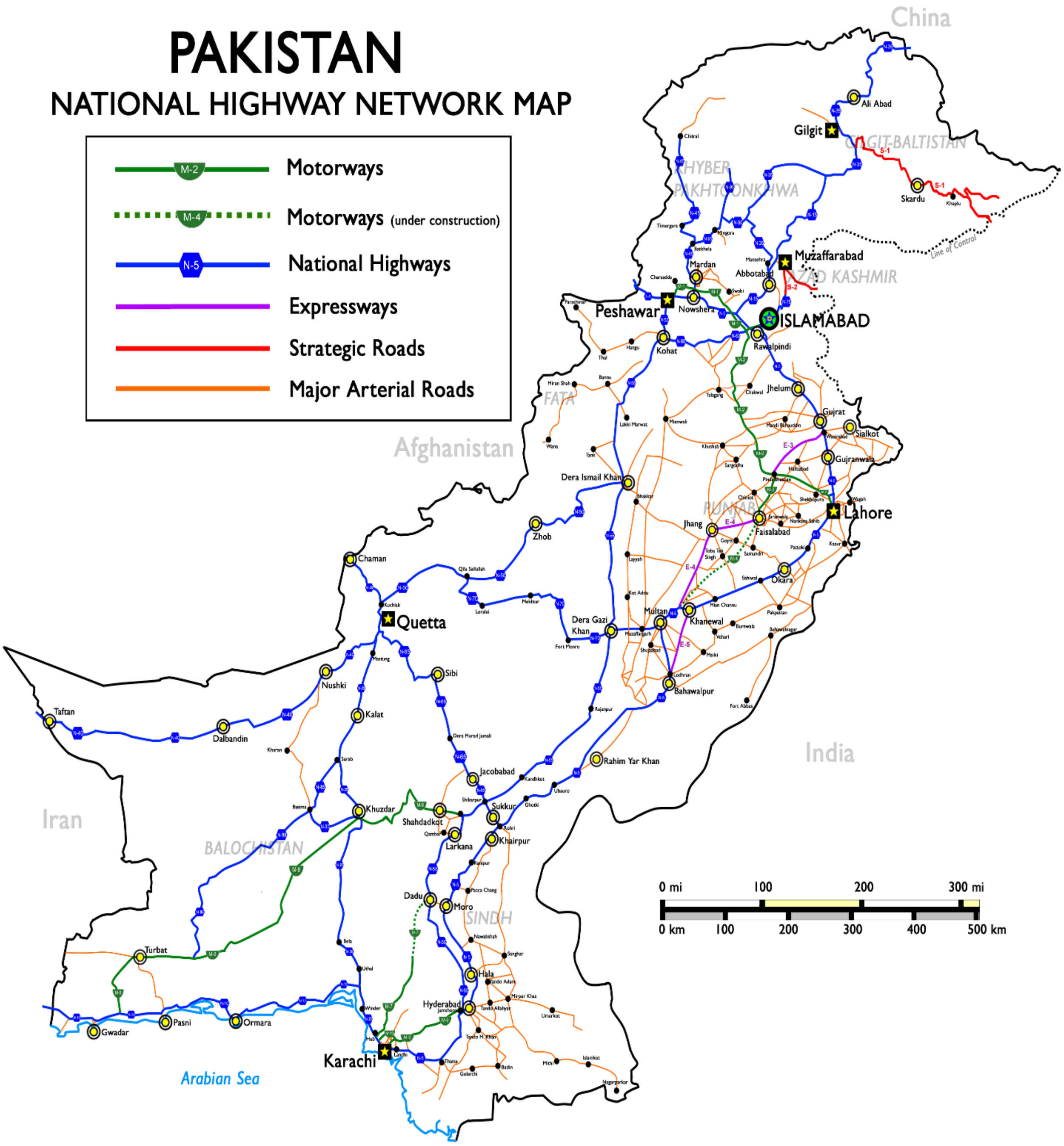
Annexure-A has the list of questions enquired from each of the government agencies and the public/private market players listed above.

1.7 Limitations of the Study

14. The study uses qualitative analysis to assess the nature of competition in the sector. It does not apply quantitative analysis and econometric tests due to the limited availability of quantitative data. The study also has design limitation due to the sample of firms selected for interviews, meetings and the data gathered. The study assesses competition

in the sector given the regulatory framework and the market dynamics of the road construction sector.

Figure 5: Road Network Map including highways, motorways, expressways, strategic roads and major arterial roads (NHA)



Chapter 2: Enforcement Actions Taken by CCP and Other Jurisdictions in Construction Sector

2.1 Actions Taken by the Competition Commission of Pakistan (CCP)

1. Formerly established under the Competition Ordinance, 2007 (the '**Competition Ordinance**'), the Parliament (Majlis-e-Shoora) of Pakistan promulgated the Competition Act, 2010 (the '**Act**') on October 13, 2010, forming the Competition Commission of Pakistan (the '**Commission**')[20]. The Commission is an autonomous, quasi-judicial, competition law enforcement authority which ensures a level playing field and an environment of healthy competition between firms for the benefit of the economy. The preamble of the Act provides:

   > *"An Act to provide for free competition in all spheres of commercial and economic activity to enhance economic efficiency and to protect consumers from anti-competitive behavior."*
   >
   > *"WHEREAS it is expedient to make provisions to ensure free competition in all spheres of commercial and economic activity to enhance economic efficiency and to protect consumers from anti-competitive behavior and to provide for establishment of the Competition Commission of Pakistan to maintain and enhance competition, and for the matters connected therewith or incidental thereto."*

2. In pursuit of its mandate, the Commission issued a policy note on 1st October, 2014, on exemptions granted to certain undertakings in the construction sector. A brief summary of the policy note is as under:

   i. It was found out that exemptions were being given to the three public sector firms in construction sector, namely National Construction Limited (NCL), Frontier Works Organization (FWO) and National Logistics Cell (NLC). The exemptions distorted the market and restricted competition. The Ministry of Defence, since 1985, exempted FWO from furnishing a Bank Guarantee against Performance Security and Mobilization Advance for services it rendered to the federal and provincial governments. Ministry of Housing and Works granted exemptions to NCL in government works contracts, including both in the federal and provincial governments, where NCL was not required to furnish Performance Bond and Bank Guarantee against Earnest Money and Bank Guarantee for Advance. In 2000, the Planning and Development Division exempted NLC from providing Performance Bond, Bank Guarantee for Advances and Release/Adjustment of Retention Money in the contracts for

[20] The Competition Ordinance, 2007 replaced the Monopolies and Restrictive Trade Practices Ordinance (MRTPO), 1970. Monopoly Control Authority (MCA) was the organization to administer the MRTPO. However in the changing economic conditions globally and nationally the MRTPO was inadequate to address the competition issues effectively.

government works. The federal and provincial governments remain the clients of NCL, FWO and NLC, therefore, due to the various exemptions granted to them, the private sector could not participate in the federal and provincial level projects and there was no real competition between the public and the private construction firms.

ii. The exemption of a Bank Guarantee to serve as a Performance Bond and a Bank Guarantee to secure Advances provides advantage at the bidding stage and impact the financial commitment of the construction firm. The exemption from Retention Money Adjustment provides a cash flow advantage during the course of the project at any given time. Exemption from Retention Money requirement given to any undertaking can earn bank profits on funds, whereas the undertakings without the exemption do not have the funds available to earn profit.[21]

iii. The Commission found these exemptions to be discriminatory in nature and act as a barrier to entry for the private firms. It was, therefore, recommended that the Planning and Development Division, the Ministry of Housing and Works, and the Ministry of Defence to withdraw these exemptions and adopt a transparent and open nondiscriminatory procurement process in public works and create a level playing field for all undertakings, regardless of whether they were state owned or privately owned.

2.2 History of Mergers in the Sector

3. The Commission has approved mergers in the construction sector however these mergers are not in the road construction sector. These mergers are in the housing and real estate sector: TriParty Joint Venture Agreement (JV) between Defence Housing Authority Islamabad (DHAI), Bahria Town (Private) Limited (BTL) and Habib Rafique (Private) Limited (HRL) in 2010; and the merger of Ghumman Housing (Pvt..) Limited (GHPL) with and into Citi Housing (Pvt.) Limited (CHPL) in 2014.

4. Private firms operating in road construction sector form strategic joint ventures with other Pakistani or foreign firms to undertake road projects. Strategic joint venture are less permanent in nature and firms often pool their resources to form such a joint venture. Firms enter into such joint ventures to take larger opportunities which they otherwise are unable to take up individually; foreign firms often enter into such agreements to enter into the domestic market (In Pakistan under the PEC Bye-laws the private foreign firms cannot take up road construction projects unless the domestic firms have a minimum of 30 percent investment); firms are able to access resources

[21] Where these Bank Guarantees are exempted, the guarantees are provided for by the Government of Pakistan. Exemption of such bank guarantees removes any credit risk associated with the project undertaken by the undertaking. When exempted these guarantees then represent a direct credit risk on the government. However, these guarantees represent a liability that may or may not materialize. Nonetheless, these should be sufficiently provisioned for-State Bank of Pakistan

and technology of the other firm. The relevant portion of the PEC Bye-Laws is reproduced below. Section 7(2) of the Construction & Engineering Works Bye Laws, 1987 (to be applied for all engineering works above PKR 04 million) states:

"The establishment of a joint venture shall be subject to the condition that share of the Pakistani constructor or Pakistani operator shall not be less than thirty percent".

These strategic joint ventures do not come to the Commission for approval under Section 11 of the Act since these joint ventures are not permanent in nature and the joining firms do not create a new legal entity.

2.3 International Jurisdictions and Enforcement Action in Road Construction Sector

2.3.1 India

5. The Competition Commission of India ('CCI') has dealt with various cases involving the development of road infrastructure projects under abuse of dominance as well as prohibited agreements. In the order of Builders Association of India (Kerala Chapter) vs the State of Kerala, Kerala Public Works Department and Kerala State Construction Corporation Limited ('KSCC')[22], it was alleged that the State of Kerala was favouring KSCC in the award on public works projects. It was alleged that since all the tenders for public works in Kerala were floated by the State, it was dominant in the market for tender procurements relating to construction works in Kerala. This favourable treatment was in the form of exemption from applying for pre-qualification, earnest money deposit and a price preference of 10% over the lowest quoted rate.

6. It was also alleged that KSCC through the receipt of bribes then subcontracted work through a panel of subcontractors with whom it signed MoUs which should be considered as prohibited agreements in terms of the Competition Act.

7. The Order found that there were two relevant markets, i.e., 'the market for procurement of services for civil construction work by tendering in the state of Kerala' and 'the market of the provision of services for civil construction works to the State of Kerala'.

8. In the second relevant market, the share of KSCC comes out to be 0.60% on the basis of number of works awarded and 17.25% on the basis of value of works awarded. It was also found that there were numerous contractors operating in the relevant market that posed a competitive restraint on KSCC. Therefore, it was determined that KSCC did not hold a dominant position in the relevant market. The exemptions granted to KSCC were found to be a policy matter. The Order also found no evidence of prohibited agreements.

[22] http://www.cci.gov.in/sites/default/files/422013_1.pdf

9. In the case against the Public Works Department Government of Haryana ('PWD')[23], it was alleged that PWD had abused its dominant position by imposing unfair terms and conditions in the tender for Construction of Approaches to 2 Lane Rail Over Bridge. The Order found that PWD fell within the definition of an enterprise and that the relevant market was the market for procurement for construction and repair of roads and bridges through tendering in the State of Haryana. Since PWD was the only procurer in the market, it was found to be dominant. However, the Order found that the clauses in the tender were not unfair and therefore, there was no abuse.

2.3.2 European Union

10. Road infrastructure cases are dealt within the EU primarily under Articles 107 to 109 of the Treaty on the Functioning of the European Union (TFEU) which give the European Commission the power to deal with state aids that could distort competition within the internal market. A case involving cartelization in an ancillary product to road construction, i.e., bitumen (asphalt) was prosecuted in the EU. The case involved cartelization by eight suppliers and six purchasers of road bitumen in the Netherlands[24]. Road construction companies were also involved in the cartel price which fixed the gross price of all road pavement bitumen sold in the Netherlands. Moreover, they agreed to set uniform minimum rebates for the construction companies that were cartel members and a smaller maximum rebate for all other road builders. It was found that this restricted price competition and disadvantaged smaller road building companies.

2.3.3 United Kingdom (UK)

11. In 2009 the Office of Fair Trading (OFT) UK imposed fines summing to a total amount of £129.2 million on 103 construction firms in the English construction market for contravening the Competition Law. The OFT investigation found certain construction firms colluding with competitors on building contracts. The OFT decided that the 103 firms had engaged in anti-competitive practice of bid rigging in the form of 'cover pricing'.[25]
12. Some contractors/companies in the above mentioned case of OFT maintained that the companies submitted inflated tenders not to increase price but to price themselves out of the contract and to maintain client goodwill. However the OFT decided that the practice gave a misleading view of the tender price and the extent of competition in the tender process resulting in contracts awarded at higher prices compared to a true competitive process.[26] It was also found that the successful bidder in such practice made

[23] http://www.cci.gov.in/sites/default/files/70%20of%202014.pdf
[24] http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32007D0534&from=EN
[25] Cover pricing is the practice where one or more bidders in a tender process submit an artificially high price with the aim of not securing the contract
[26] https://assets.publishing.service.gov.uk/media/555de4ce40f0b666a2000160/table-of-infringements.pdf, retrieved on 1st Nov, 2017

'compensation payment' to bidders who made inflated bids such that the successful bidder wins the contract.[27]

13. One such case investigated by the OFT was the Digital Media Centre tender in Barnsley in 2006. One of the Contractors/parties namely Morgan Ashurst supplied a "cover price" to another bidder- Willmott Dixon, who submitted the inflated bid. Eventually Morgan Ashurst won the contract. It was found that 2 out of 3 bidders engaged in cover pricing. Three other invited bidders did not tender. Clients could not distinguish between genuine and "manufactured" bids. Potential entrants did not enter, thus rendering the market uncompetitive. The OFT also found six instances where successful bidders had paid an agreed sum of money to the unsuccessful bidder as compensation payment. These payments were between £2,500 and £60,000 for raising false invoices.[28]

2.3.4 Japan Fair Trade Commission

14. The JFTC(Japan Fair Trade Commission) leveled accusations regarding bid rigging in the disaster restoration paving works project for the Great East Japan Earthquake ordered by the Tohoku Branch of East Nippon Expressway Company Ltd. East Nippon is a company engaged in the construction and operation of expressways in Japan. It was formed as a result of the privatization of Japan Highway Public Corporation in Oct 2005.

15. The Japan Fair Trade Commission found a criminal violation of the Antimonopoly Act (AMA) and filed a criminal accusation with the Public Prosecutor-General against 10 companies including NIPPO Co.Ltd, as well as 11 employees of those 10 companies who were engaged in the contracts of road construction projects under Article 74(1) of the AMA.

16. The 11 individuals held meetings with employees of the same set of companies between July and September 2011.They agreed to designate successful bidders and bid at prices allowing the successful designated bidders to win. The 11 individuals, in accordance with the agreement, designated the successful bidders for each of the works, contrary to the public interest, thereby substantially restraining competition by mutually restricting their business activities in road construction sector.[29]

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[27] http://www.brodies.com/binformed/legal-updates/cover-pricing-in-the-construction-industry, retrieved on 2nd Nov, 2017

[28] https://www.gov.uk/cma-cases/construction-industry-in-england-bid-rigging, retrieved on 1st Nov, 2017

[29] http://www.jftc.go.jp/en/pressreleases/yearly-2016/February/160303.files/set.pdf, retrieved on 30th Oct, 2017

Chapter 3: Regulatory Framework

1. Although there is no specific sector regulator the following agencies/departments are involved in the activities of the construction sector:

    - Pakistan Engineering Council ('PEC')
    - Public Procurement Regulatory Authority ('PPRA')
    - Provincial Public Procurement Regulatory Authorities
    - Public Private Partnership Authority (PPPA)
    - Provincial Public Private Partnership Authorities
    - Pakistan Standard & Quality Control Authority ('PSQCA')
    - Environmental Protection Agency ('EPA')
    - Provincial Environment Protection Departments

    With respect to the role of PEC, it may be noted that PEC primarily acts as an advisory body rather than a regulator. Since the sector involves large volumes of public procurement PPRA and provincial authorities play an important role by setting rules (ex-ante regulation) and monitoring the procurement process. PPPA and equivalent provincial bodies have a planning and oversight role in projects undertaken under the public private partnership mode. The role of EPA and provincial environment protection departments is to review Environmental Impact Assessment reports of road construction projects, conduct public hearings in EIA cases and to issue environmental approvals. PSQCA is indirectly involved through setting of standards for construction materials.

    The roles of PEC, PPRA (and provincial authorities), PPPA (and provincial authorities) vis–à–vis the road construction sector, are explained in detail below.

3.1 Registration and Accreditation by PEC

2. PEC has been constituted under the Pakistan Engineering Council Act, 1975. As per the provisions of this Act, its statutory functions include: registration of engineers, consulting engineers, and constructors/operators and accreditation of engineering programmes offered by universities/institutes. In addition, PEC is also involved in establishing standards for engineering products and services.

3. As per Construction and Operation of Engineering Works Bye-laws, 1987, PEC grants licenses to constructors and operators based on certain criteria which includes pool of professional engineers (professional credit points are calculated based on experience of engineers employed), work/projects undertaken previously and financial soundness of

the company. The constructor/operator also indicates its field of specialization based on its past projects and human resource expertise. A specialization code is then allotted by PEC based on this experience and firms can bid on projects based on these codes, for example, for road construction, the relevant code is Civil Engineering – CE01, bridges – CE02. The license is granted for a period of 01 to 03 years after which the firm has to apply to PEC for renewal.

4. The constructors/operators are divided into various categories and are issued licenses by PEC. These categories in turn limit the value of projects that the firm can bid for. The categories for constructors is given in *Table 4* below:

Table 4: PEC Constructors Category

Constructor's Category	**Limit of Construction cost of Project (million rupees)**	**Paid up capital or net/capital worth (million rupees)**	**Minimum requirement of net credit points (pcp credit)**
C-A	No limit	100	150
C-B	Up to 3000	80	100
C-1	Up to 1800	60	75
C-2	Up to 800	40	30
C-3	Up to 400	20	15
C-4	Up to 150	4.0	10
C-5	Up to 50	2.0	5
C-6	Up to 20	1.0	5

Source: Construction and Operation of Engineering Works Bye-laws, 1987.

5. PEC maintains a list of all constructors and operators on its website. Based on this list the largest players in the sector would, therefore, fall under the category of C-A. It is noted that foreign constructors/operators are also required to obtain licenses from PEC. According to PEC, the current number of CA level firms registered with it are approximately 200.

6. Two or more licensees can apply jointly to construct or operate a project of a category higher than the category of their individual licenses provided that the cost of such project does not exceed the sum total of the limit of costs of projects permitted by the categories of the individual licensees.

7. PEC can take punitive measures by suspending the license of a firm for which it has received complaints or which has been blacklisted by a client. Other than this, it does not have any enforcement powers to take punitive action as a result of any violation of its Bye Laws.

8. For all civil works with estimated value of more than Rs.25 Million, the Standard Form of Bidding documents, prepared by PEC and approved by Executive Committee of National Economic Council (ECNEC), would be used by all government departments

procuring civil works[30]. On 20th April, 2016, the Commission passed an order against certain clauses of this agreement dealing with bid security and performance security. The impugned provisions contained the requirement of obtaining insurance, for bid security and performance guarantee, from AA[31] rated companies only. However, no such restriction was placed on banks providing bank guarantees for the same. The Order found that these provisions were since the market for issuance of bid and performance security for public works was foreclosed to all except for 3-4 AA rated insurance companies. Also by allowing banks to provide guarantees without requiring them to hold a specific credit rating, the PEC had imposed dissimilar conditions to equivalent transactions.

9. ECNEC approval has also been obtained for other standardized documents which were also found to contain the same requirement of AA rating for insurance companies, but were not impugned by the enquiry committee or the subsequent order passed by the Commission. These documents are as follows:

i. Standard Form of Bidding Docs for Procurement of Works (E & M);
ii. Standard Form of Bidding Documents for Procurement of Works for Smaller Contracts

3.2 Public Procurement Regulatory Authority (PPRA) Rules

10. Since the government (at the federal, provincial and local level) generates demand for various road projects, the process is subject to PPRA rules. The provinces follow the public procurement rules of their respective provinces which are largely in congruence with PPRA rules. The SOEs involved in the sector, i.e., FWO and NLC, are also subject to PPRA rules.

11. The objective of public procurement rules is to ensure transparency, efficiency and value for money which is achieved through fair and open competition. The role of PPRA is the ex-ante promotion of competition (i.e. through procurement rules and guidelines that ensure a level playing field, maximum participation of qualified bidders etc.) whereas the role of CCP is ex-post (i.e. prosecuting cases of bid rigging and/or other forms of collusion amongst bidders).

12. Under PPRA rules, road construction projects are to be awarded through open competitive bidding subject to rules 22 to 37. Exceptions are allowed under Rule 42(d) in case of emergencies or natural disasters. Under Rule 5, international and inter-

[30] vide SRO 628(I)/2003 an amendment was made in the Construction and Operation of Engineering Works Bye-laws, 1987 on 21.06.2003

[31] A credit rating is an assessment of the ability and willingness of an entity to fulfill its financial commitments. Ratings ranging from +AA, AA, -AA indicate high credit quality; Protection factors are strong. Risk is modest but may vary slightly from time to time because of economic conditions (Source: JCR-VIS Credit Rating Company Limited) Retrieved 19.10.2017

governmental agreements are also exempt from PPRA rules (in case there is any conflict between the Rules and the international agreement).

3.3 Public Private Partnership Authority (PPPA)

13. Projects undertaken under the Public Private Partnership (PPP) mode at the federal level are monitored by the Public Private Partnership Authority (PPPA), formerly Infrastructure Project Development Facility (IPDF). Under the PPP policy framework, PPPA is required to facilitate private investment in government initiated/owned projects and to prepare and close PPP transactions between public and private entities. Moreover, this platform has also been developed to determine funding gaps in such projects, i.e., arrange funds for a product which is economically feasible but not financially feasible. Furthermore, it also has the objective of making these transactions viable by ensuring cost minimization for the stakeholders which is achieved through the instrument of competitive bidding. The scope of PPPA comprises of, but not limited to: Transport and Logistics; Mass Urban Public Transport; and Energy and Irrigation Projects.

14. Under the Public Private Partnership Authority Act, 2017, PPPA's functions primarily includes:

    i. Evaluating PPP projects in terms of feasibility;
    ii. Advising and facilitating the implementing agency to identify, develop, structure and procure PPP projects;
    iii. Preparation of standardized concessionaire agreements for PPP projects; and
    iv. Play the role of 'gatekeeper' at all stages of the project life cycle such as planning, tendering, bidding and contract.

15. Therefore, projects under the PPP mode are subject to an additional level of scrutiny at each stage of the project.

Chapter 4: Market Structure

4.1 Relevant Market

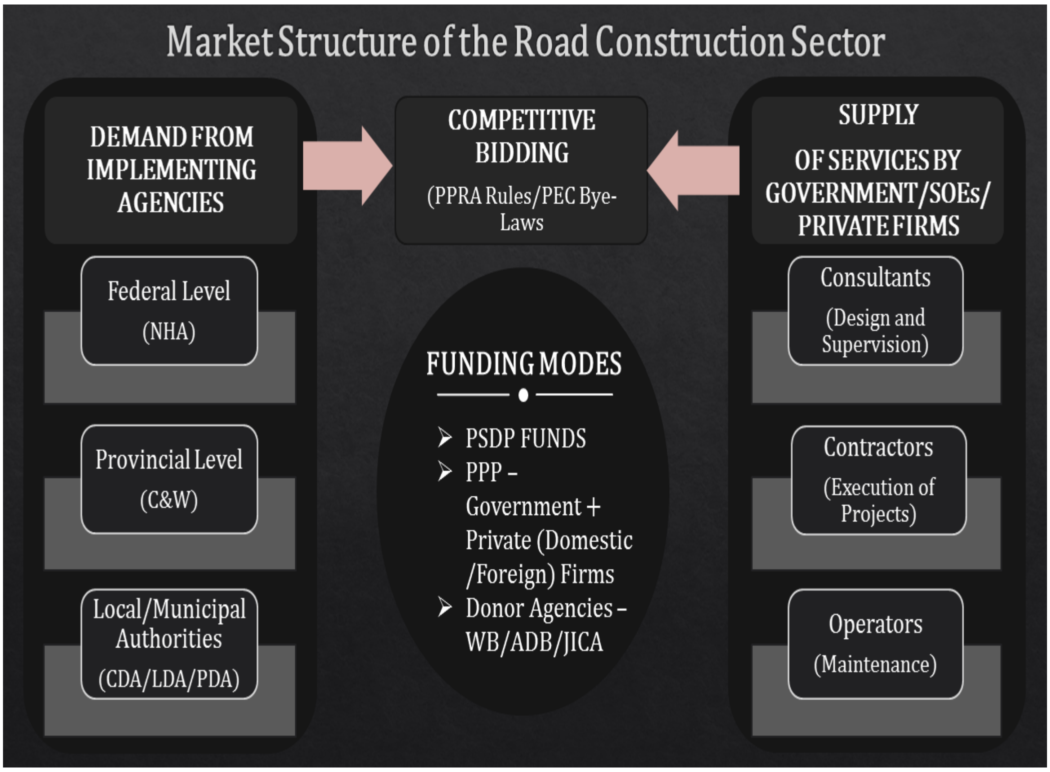
1. Any market structure is determined by the number of firms and buyers in the market, the nature of product/service produced, availability of substitutes, availability of information to both the sellers and the buyers and entry barriers. In the road construction sector, firms have specialization in a particular road project such as highways, motorways, bridges and/or intercity roads. Each category of constructors/operators defined under PEC Bye-Laws from CA to C6 has many firms who compete with each other in their respective categories. The relevant market comprises of *relevant product market* and *relevant geographic market.* The relevant product market is the road construction market including the construction of highways, motorways, bridges, intercity and intra city roads. The relevant geographic market taken to assess competition includes all road construction in Pakistan.
2. Construction of road infrastructure is the prerogative of the government which generates demand for these road construction projects along with generating demand for ancillary products at various levels. The National Highway Authority ('NHA') for construction, repair/maintenance and operation of national highways and motorways and the provincial Works Departments/district governments for inter-city roads network.

3. The supply side of the market consists of the following:

    i. **Consultants:** Involved in the design, construction supervision and quality assurance services;
    ii. **Constructors/Contractors:** Are the actual executors of the project/construction. Comprise of categories CA to C6. A lead constructor usually sublets part of the work to smaller sublet contractors;
    iii. **Operators:** Supervise manage, operate and execute all activities required to efficiently operate a project after it is constructed. For some highways, the operator is NHA. This function is also outsourced to other operators. PEC Bye-Laws comprise of categories OA to O6 for operators.
    iv. **Ancillary market:** This includes the main raw materials utilized in road construction, which includes but is not limited to sand, aggregate/crush, cement, steel, asphalt, machinery and equipment.

4. In the market for road construction sector the demand for road construction by the implementing agencies (Federal, Provincial or Local/Municipal) interact with the supply of services in the sector by the SOEs, private firms or foreign firms through the competitive bidding process where PPRA Rules and PEC Bye-Laws apply. A diagrammatic representation of the market is presented in *Figure 6* below

Figure 6: Market Structure of Road Construction Sector



4.2 Demand Side

4.2.1 National Highway Authority

4. NHA was created in 1991 through an Act of the Parliament for planning, development, operation, repair and maintenance of National Highways and Strategic Roads, especially entrusted to NHA by the Federal Government or by a Provincial Government or other authority concerned. Total length of the federal roads under NHA now stands at 8780 km which account for 3% of the entire road network and 75% of the commercial road traffic in the country.[32]

5. NHA undertakes projects in two modes: publically funded, i.e., through PSDP and for motorways, through Public Private Partnership ('PPP[33]') mode. NHA receives funds from the Federal Government under PSDP which account to Rs.50-Rs.60 billion annually. However these funds are not sufficient to meet the requirements of road repair and construction by NHA. The maintenance cost of NHA are primarily met through toll receipts which are Rs.17 billion annually against the annual requirements of Rs.27 billion. NHA has adopted the PPP mode on, Build Operate Transfer (BOT) basis. NHA

[32] National Highway Authority, retrieved from NHA website http://nha.gov.pk/en/background/
[33] There are various models for Public Private Partnership which include: Design-Build-Operate, Build-Operate-Transfer, Build-Transfer-Operate, Build-Own-Operate-Transfer etc.

undertakes projects under this mode for motorways which are deemed to be financially feasible projects. In BOT, both the capital and the maintenance costs have to be recovered during the concession period decided. Therefore, in BOT projects, the toll rates are higher.

6. All the projects are awarded through open competitive bidding in accordance with PPRA rules. Data from PPRA regarding contracts awarded by NHA shows that a single stage two envelope procedure is adopted and the bid is awarded to the lowest bidder.

7. The contract is awarded through open competitive bidding for 20-25 years, whereas the toll is set by NHA which also receives a share in the revenues. All the project risks, except for political and law and order risk, are borne by the private company which faces the following risks: cost overrun, time overrun, design and construction risk, demand risk, maintenance risk etc.

8. Bidding is done through a two stage process with prequalification applications submitted to NHA after which shortlisted prequalified bidders are issued a Request for Proposal ('RFP'). The bidders are then ranked based on an evaluation criteria and the bid is awarded to the highest ranked bidder.

9. After award of the contract, a concession agreement is signed between the successful bidder ('concessionaire') and NHA. The concessionaire forms a special purpose investment vehicle for the project. For example, for the rehabilitation and improvement of the M-2, the contract was awarded to FWO after open competitive bidding and since the project was under PPP mode a separate company called 'MORE' was formed, with which NHA signed the concession agreement. MORE would not be subject to the tax and other exemptions available to FWO. The concessionaire signs a number of agreements with vendors for various aspects of the project, e.g., design, construction, maintenance, supply etc[34].

10. It is noted that since the concession agreement between NHA and the concessionaire grants exclusivity to the concessionaire, an exemption application may be filed with the Commission. The exemption department has asked NHA to apply for exemption for concession agreements executed however no such application has been filed till the drafting of this report.

4.2.2 Provincial Public Works, Communications & Works Department & Municipal Authorities

11. For roads that are not part of the national highway and motorway network, such as intra-city and provincial roads[35], the demand is generated by provincial and municipal

[34] Since MORE is owned by FWO which is a state owned company the subcontracting was done through open competitive bidding under PPRA rules.
[35] Roads maintained by the Provincial Governments.

authorities. Rules of the respective provincial public procurement regulatory authorities are followed who are also entrusted with the monitoring of the procurement process.

4.2.3 Road Construction Project under China-Pakistan Economic Corridor (CPEC)

12. Various infrastructure projects initiated under the banner of CPEC have resulted in a substantial increase in demand for road construction projects in Pakistan. As mentioned earlier, the CPEC projects are being funded both by the GOP under PSDP and some are funded by China. In road construction/infrastructure development under CPEC, NHA is planning and developing a network of roads, currently pertaining to CPEC worth Rs. 700 billion. These include short, medium, and long term projects. Short to medium plan period is 2013-18 and 2018-23, whereas the medium to long term project plan period is 2023-28 and 2028-33.[36] In addition, there are some *early harvest projects* (on going 2016-2020) funded by People's Republic of China, *inter alia*, Thakot-Havelian Motorway (120 km) and Sukkur-Multan Motorway (392 km). Overall, the road construction projects which form the part of CPEC are much higher in magnitude and demand. Pre CPEC, the magnitude and demand of the road construction projects was not that high.

4.3 Supply Side

4.3.1 Consultants

13. The role of consultants comprises of design, construction supervision and quality assurance services. These services are human capital intensive, the design services involve highly skilled human resources and the supervision aspect requires a significant amount of manpower. In Pakistan the government owned National Engineering Services Pakistan (Pvt.) Limited (NESPAK) is the largest consultancy firm in the road construction engineering sector which has a staff of 2500 engineers. In the highways and transportation engineering sector, NESPAK has assumed a number of roles including an advisory role in policy making and in designing and construction. It also provides quality assurance services through supervision of various projects executed in Pakistan and abroad. It is 100% government owned and under the administrative control of the Ministry of Water and Power. NESPAK is fully financed through its own projects.

14. NESPAK, like all other consultancy firms in the market, has to participate in the process of competitive bidding through which it may be awarded a project. Although there are other consultants present in the market, NESPAK is by far the largest with its nearest competitors barely being one-third of its size. By virtue of its size, NESPAK has a substantial competitive advantage over its significantly smaller competitors. This competitive advantage stems from the fact that certain tasks to be performed by the

[36] The road infrastructure includes both highways and motorways under western alignment, eastern alignment and central alignment. The various routes are in various stages of completion, some are complete, some under construction, near completion and some in design stage.

consultant such as surveying are human capital intensive. A smaller firm would simply not have the manpower to execute such tasks for a large project.

4.3.2 Constructor/Contractor & Operators

15. In order to assess the number of players in the market and their respective size, the study uses the PEC list of registered contractors with the CA category indicating the largest sized firms, i.e., those firms that can undertake projects without any limits, have paid up capital of PKR 100 million and 150 percentage points. The number of firms in each category is given in *Table 5*:

Table 5: Number of Firms in Each Contractor Category

Contractor's Category	No. of Firms
C-A	131
C-B	88
C-1	240
C-2	495
C-3	1046
C-4	2186
C-5	2808
C-6	5648
Total	**12,642**

Source: Extracted from PEC website[37]

16. In the CA category, there are 10-15 large Pakistani contractor companies including two SOEs -- FWO and NLC (discussed in greater length in Section 3.3.3 below). The number of firms increase as the category levels go down with a large number of small contractor firms.

17. The initiation of road construction projects as a part of CPEC has altered the road construction market structure somewhat with a number of Chinese contractors entering the Pakistani market. It must be stated that under CPEC infrastructure projects only two projects are financed by China and are executed under the Government to Government agreement. All Chinese companies working under CPEC are state-owned enterprise working under the direct instructions of Chinese Government.[38]

[37] http://verification.pec.org.pk/COFirmList/Search
[38] Information shared by Planning Commission

18. Pre-CPEC, the standard practice as per PEC Bye Laws was for foreign companies to enter into JVs with Pakistani companies, however, some projects such as the Lahore-Islamabad Motorway were undertaken by M/s Daewoo Corporation Korea on a standalone basis. Foreign contractors are currently operating (through JVs) but on a very limited scale. Some of the notable foreign contractors include Limak (Turkish firm through JV with ZKB has completed the Hakla-Pindi Gheb Section and Pindi Gheb-Tarap Section of the CPEC corridor) and Taisei Corporation (Japan).

4.3.3 SOEs—Frontier Works Organization (FWO)

19. Established on 31st October, 1966, FWO ranks amongst Pakistan's largest construction organizations. It has been involved in construction of approximately 13,000 km of road infrastructure around the country and has over 50,000 employees. Its areas of operation include construction of roads, bridges/structures, tunnels, airports/airfields, railway projects, dams, hydroelectric and thermal projects, canals, water supply and drainage works, development of infrastructure, housing and services, and telecommunication. FWO has also extended its operations internationally and has undertaken major projects in Kuwait, Afghanistan and the UAE. Overall, any project of FWO is undertaken by 60%-70% of its own staff. . It should be noted that salaries of the FWO staff is directly covered by the FWO which is a self-financed organization since 1982.

20. Prior to 1982, projects were directly allotted to various SOEs, including FWO. However, after 1982, the government released directions which required all SOEs in the sector to earn projects through the process of competitive bidding. Conversely, in case of unusual circumstances, such as emergency, security sensitive areas/projects, natural disasters, technical requirements of a project, etc., projects may be awarded directly to such SOEs on ad hoc basis, called "Single Tender", "Direct Contracting" or "Negotiated Tendering". In such cases, the awarding undertaking has to take a waiver from PPRA under Section 42 (c) and (d) of the PPRA Rules.

21. FWO also receives tax exemptions from the government under the Income Tax Ordinance due to its status as an SOE. Being an SOE, for PSDP funded projects, FWO receives a waiver for providing performance security (in the form of bank guarantee) which has to be negotiated with each respective client. It may be noted that for foreign funded projects, no such exemption is available. The limited exemption is only for performance guarantee and not available for other forms of security summarized below:
    a. Bid security – to be provided for all projects (PSDP and foreign funded);
    b. Mobilization advance guarantee – to be provided for all projects (PSDP and foreign funded);
    c. Performance security – to be provided for foreign funded projects and for some PSDP projects may negotiate an exemption.

From a competition perspective these exemptions distort the level playing field in the sector by giving SOEs like FWO a significant cost advantage over other private sector competitors in the bidding process.

4.3.4 SOEs—National Logistics Cell

22. NLC was created in 1978 as a crisis management organization of the federal government, primarily to cater to logistical requirements of the country in case of strategic issues. Based on self-finance, it works in diversified fields of operations which are comprised upon various strategic business units. Whereas NLC Engineering and Construction Wing is involved in the construction of highways, runways, bridges and other concrete works, construction of petrol/oil storage tanks, buildings, etc., and contributes around 70% - 80% to the overall revenue of NLC.

23. It also provides freight services and is involved in construction and management of dry ports and border terminals. NLC also ventured into provision of tolling services in Pakistan in 1999. Moreover, NLC's portfolio also includes on-land freight services known as the NLC Express Freight Train (NEFT). NLC is also engaged outside Pakistan, specifically in Qatar, Saudi Arabia and Afghanistan.

24. Projects related to roads and bridges are attained by NLC through the process of competitive bidding unless they are located in areas with high security concerns. Where 50% - 70% of the work is sublet to external parties through procedures laid under PPRA Rules. Moreover, even in case of "Limited Tendering" which is opted for under unusual circumstances, relevant provisions of PPRA Rules are followed. Similar procedures are also followed for procurement of various raw materials.

4.4 Foreign Direct Investment (FDI)

25. The construction sector in general, and road infrastructure in particular, provides a lucrative avenue for investment to foreign investors. In Pakistan, due to various regulations, particularly PEC Bye-Laws, foreign firms can partake in the process of competitive bidding of a project, however, the Bye-Laws demand that at least 30% of the investment has to be made by domestic firms. The relevant portion of the Bye-Laws is reproduced below. Section 7(2) of the Construction & Engineering Works Bye Laws, 1987 (to be applied for all engineering works above PKR 04 million) states:

> *"....Any such foreign constructor or foreign operator shall enter into a joint venture agreement with the Pakistani constructor or Pakistani operator in which share of foreign constructor or foreign operator shall be limited to the expertise and technology not available with the Pakistani constructor or Pakistani operator. The establishment of a joint*

venture shall be subject to the condition that share of the Pakistani constructor or Pakistani operator shall not be less than thirty percent."

Therefore, the general practice of foreign firms' participation in this sector in Pakistan is carried out through the mode of JVs.

26. It can also be observed that the above mentioned bye-law restricts the scope of participation by foreign bidders to "*the expertise and technology not available with the Pakistani constructor or Pakistani operator*[39]*."* Hence, the foreign firms are restrained from applying to bids which can be catered to by local expertise and technology, adversely impacting the level of competition in the sector.

27. In Pakistan, prominent foreign participants belong to various countries such as, China, Turkey, South Korea, and USA. Foreign companies, such as Limak Construction Industry and Trade Incorporation (Turkey), Daekwang Engineering and Construction Co Ltd. (South Korea), Nigro Construction Inc. (USA), etc., have been involved in various road construction projects, for instance Muslim Bagh-Qila Saifullah; 50 KM section (N-50) Highway, Hassanabdal-Havelian Highway (E-35); Sarai Saleh-Simlaila section, China-Pakistan Economic Corridor (CPEC), etc. Moreover, with the advent of CPEC, China has also become a major participant and stakeholder in the road construction sector of Pakistan (Please refer to Section 3.5 below for further details).

4.5 China-Pakistan Economic Corridor (CPEC) Road Infrastructure Projects

28. For the execution of CPEC road infrastructure projects, the GOP has given exemptions on the payment of advance income tax (vide SRO No. 735(I)/2016[40]) and import duties on equipment and construction machinery (vide SRO No. 642(I)/2016[41]) to M/s China State Construction Engineering Corporation Limited for Sukkur-Multan section of Karachi-Peshawar Motorway and to M/s China Communication Construction Company for Karakoram Highway Phase-II (Thakot-Havelian section).

29. Moreover, the modalities for execution of CPEC projects are slightly differentiated from other projects, in that the Chinese government nominates three to four Chinese companies and bidding for the project takes place among these short listed firms. It should, however, be noted that Chinese contractors and consultants, like any other foreign participants, have to be registered with the PEC.

30. Furthermore, road construction projects under CPEC involve Chinese financing and are undertaken under a Government to Government agreement which exempts it from Section 7(2) of PEC Bye laws[42] (regarding formation of JV with a Pakistani firm).

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[40] http://download1.fbr.gov.pk/SROs/2016818128344992016SRO735.pdf
[41] http://download1.fbr.gov.pk/SROs/2016728117191863SRO642of2016.pdf
[42] Construction and Operation of Engineering Works Bye-Laws, 1987

However, it was discovered that the GOP has requested the Chinese government to allow 30 percent of the project to be sub-contracted to Pakistani contractors and consultants.

31. Government to Government agreements are also exempted from application of PPRA rules. Rule 5 reads as follows:

> *"International and inter-governmental commitments of the Federal Government.- Whenever these rules are in conflict with an obligation or commitment of the Federal Government arising out of an international treaty or an agreement with a State or States, or any international financial institution the provisions of such international treaty or agreement shall prevail to the extent of such conflict".*

32. In case of CPEC projects, Economic Coordination Committee (ECC) approval (in light of PPRA Rule 5) needs to be obtained for limited bidding in accordance with the framework agreement signed with the Chinese Government.[43]

4.6 Ancillary Products

33. The primary ancillary products used in road construction sector that will be taken into account for the purpose of this research include: cement, steel, asphalt, sand, aggregate (crush), and machinery and equipment. The state of competition within these markets in relation to the road construction (vertical restraints, cartelization, etc.) will be discussed below:

a) Sand: Sources of sand suitable for use in construction of roads are as follows: DG Khan which is supplied to and used in areas in KPK; Lawrencepur in Punjab is used for supply in Punjab; Bholari in Sindh and Harnai in Balochistan for supply to that province. One of the major costs incurred in this market is transportation from these areas to the site of the project. Due to this reason, the major determinant of selecting a certain supplier is the distance from source to the location of the project site. Other than that, a supplier is opted for on the basis of quality and price of the sand.

b) Aggregate (Crush): Aggregate is comprised upon various materials, such as sand, crushed stone, gravel, slag, recycled concrete, etc., which is used as a common raw material in the process of construction. There are three main quarries for crush that are situated in Margalla hills, Sargodha and Bholari and two secondary ones which are

[43] A concern has been raised by a firm regarding sublet contracting to Pakistani firms by Chinese companies who have been awarded CPEC projects. It was submitted that sublet contracting entails lower remuneration and a better option would be to enter into JVs instead. Whereas another private road construction firm was of the opinion that the presence of Chinese construction firms is advantageous especially to smaller firms since the Chinese have vast experience in large scale projects and are of high capacity. The smaller firms can partner with them through JVs and participate in high valued projects. By means of such JVs, the aforementioned shortcomings of smaller firms, highlighted in para 19 *ibid*, are accounted for.

located in Kashmore and Khairpur. There are contractors/dealers of two different categories at the quarries. First are the crushers who provide the crush and load it onto the dumper. The second are the transporters who transport it from the quarry to the project site. Large construction companies may have their own dumpers that are used to transport large quantities of crush required.

The ownership of the quarries is allotted to their owners via the process of auction carried out under government supervision. There is an association of quarry owners who determine the basic price of the material. The other factor that contributes towards its price is the quality of the material. Moreover, price movements are linked with prices of diesel which is used in the crushing machines.

Overall, the relationship between the construction sector and the aggregate (crush) suppliers is competitive. However, there are certain indications which suggest that within prices may be fixed by the trade union. In absence of such practices, the price could be lower if it is determined by the market forces instead, which could subsequently reduce the costs and improve efficiency of the construction companies.

c) **Asphalt (Bitumen):** Asphalt is a by-product of petroleum refining and the grade used for road construction is known as Polymer Modified Bitumen (PMB). There was only one company which produced bitumen, i.e., Attock Petroleum (after acquisition of National Refinery) (APL), however Pakistan Arab Refinery Company Limited (PARCO) has also recently started production of bitumen. Alternate sources include importing from Iran and Saudi Arabia. As it is a petroleum by-product, its price is linked to prices of crude oil.

In 2008, the Commission conducted an enquiry into a complaint filed against APL and found that APL was the sole supplier of locally produced bitumen and had refused to supply bitumen to the complainant and failed to provide any plausible commercial reasons for doing so.[44] The case is currently pending adjudication in the High Court.

d) **Iron and Steel:** Iron and Steel Industry serves as a major raw material in this sector, primarily in the construction of bridges. In Pakistan, there are around six hundred players in this industry[45] and it is predominantly competitive. Furthermore, preference is given to firms that are closer to the project/construction site due to high transportation costs associated with it. Recently, construction companies are inclined towards employing imported (mainly from China) iron and steel products due to better quality and lower prices (even after imposition of duties).

[44] In interviews conducted with firms in the construction sector during the process of this research, none of the respondents indicated any problems in obtaining bitumen or had any issue with its price.
[45] http://www.sbp.org.pk/reports/quarterly/fy16/Second/Topical.pdf

e) **Cement:** Cement is a construction material used for its binding properties due to its adhesive and cohesive characteristics which allow it to bond mineral fragment into a dense and rigid form. At present, the country is producing 46.39 million tons and is exporting 4.32 million tons, with surplus capacity available of 4.94 million tons[46].

Companies usually give preference to the nearly located factories in order to minimize transportation costs. FWO and NLC follow PPRA rules in their procurement. However, numerous anti-competitive activities have been observed in this sector such as cartelization. It should be noted that the Commission has also taken actions against cement cartels for price fixation in the past. CCP took notice of reports that Cement manufacturers had raised the price of cement per bag by PKR 15 to 20. A raid was conducted on the premises of the APCMA and impounded an agreement among member undertakings termed 'marketing agreement'. The agreement pertained to fixing quota with respect to production and supply of cement and sale at target/minimum price which was a violation of Section 4 of the Act. The Commission passed an Order imposing penalties on APCMA member undertakings totaling PKR 6,352 million. The case is currently pending adjudication.

f) **Machinery & Equipment:** The road construction sector requires very heavy and costly machinery and the prevalent practice for obtaining these is primarily through hiring or leasing. Only a few major players, such as FWO, Sachal Group of Companies, etc., are able to acquire such high costing machinery and equipment. Therefore, the common practice for the majority of the players is to hire or lease them. Such machinery, new or used, is imported by the suppliers in this market who then lease or rent it out to the construction firms who do not own their own equipment. There are few players in this market with specialization in certain types of machinery and equipment. This enables them to charge high rates for leasing and rents as this sector is not regulated. The equipment is purchased/leased/hired by the construction firms on the basis of its requirement and cost. The impression is that there are no concerns with regards to availability of equipment, however, there is a monopoly of some firms with respect to certain specialized equipment.

[46] http://www.apcma.com/data_history.html

Chapter 5: Competition Assessment

1. This chapter focuses on various barriers to competition identified in the road construction sector. Barriers to competition refer to the factors that make it difficult for new firms to enter an industry. These barriers restrict competition (entry and expansion) in the market and can be structural, regulatory, or exist due to anti-competitive practices of an incumbent or incumbents. Since the road construction sector comprises solely of public procurement through bidding, the study examines not only barriers that prevent entry into the sector but also barriers that restrict participation of firms for individual tenders.

5.1 Structural Barriers

2. These barriers exist in the form of start-up or capital cost, technology and economies of scale. Strong entry barriers exist in the markets that are highly capital intensive and can restrict potential competitors from entering or surviving in a market. The natural barriers to entry in the road construction sector are as follows:

i. Constructors and operators that fall in the CA category (including both SOEs and private firms) have economies of scale due to their large organizational size and capital ownership. This reduces their cost of doing business and therefore, gives the CA constructors and operators competitive advantage. The smaller constructors and operators in road construction sector have a disadvantage in submitting competitive bids.

ii. The road construction sector is capital intensive, including both financial and physical capital.[47] It also requires the services of skilled human resource (engineers, consultants, technicians). This holds true specifically for consultancy services which are human capital intensive, not only in terms of highly qualified engineers for design but also manpower required for surveying.

iii. In addition to capital (financial and physical) the sector all requires human resource in the form of skilled and semi skilled labour. The sector demands the services of both type of workers. However there is difference in the demand for both. Whereas thed demand for skilled labour is inelastic the demand for semi skilled labour is elastic.

5.2 Regulatory Barriers

3. A constructor/operator in road construction/infrastructure sector has to be registered by the PEC and obtain a license. The PEC gives licenses to constructors in eight categories (highest being C-A, with no limit of construction cost of the intended project to lowest

[47] Production of any good or service can be labour intensive or capital intensive. The capital intensive businesses in road construction require financial and physical capital both i.e machinery and equipment.

being C-6 with a limit of construction cost of project up to 20 million rupees). Similarly, the PEC gives licenses to the operators in eight categories (highest being O-A with no limit of capital cost of project and lowest being O-6 with a capital cost limit of up to 15 million rupees).[48] These rankings are based on the constructor/operator's capital worth, professional credit points, movable and immovable assets, income tax returns and bank statements.

4. In order to assess whether these license requirement impedes entry into the industry by placing undue burden on potential entrants, the number of constructors in each category (C-A to C-6) is a useful indicator. As per data published by PEC, the total number of contractors are 12,642 (both local and foreign), out of which 131 are in the C-A category and 5,648 are in the lowest category, i.e., C-6. Obtaining a license from the relevant authority is a prerequisite for most sectors, however, it is important that regulatory requirements do not impose an undue burden. According to C-A firms interviewed during the course of this study, they did not believe that licensing requirements limited entry into the sector.

5. PEC has standardized bidding documents based on FIDIC contracts which are to be used as a template by the clients (i.e. public sector procurers). However, Section 4(4) of the PEC Bye-laws give the client room to prescribe criteria over and above the license requirements. It reads as follows:

> "*A license granted by the Council shall entitle a licensee to perform an engineering work for client or employer. <u>However, the client or employer may prescribe his own requirement over and above the requirements for license prescribed by the Council, particularly in respect of financial soundness, plant and equipment capability, previous experience, business management capabilities and specific expertise which in the opinion of a client or employer, is essential for the execution of the work.</u> A licensee shall be eligible to apply for prequalification even if he is not enlisted or registered with the client or employer. The grant of license by the Council shall not absolve the licensee from application of any building control laws and other codes that are applicable to the engineering works.*"

6. As the nature of various projects in road construction are different from each other, therefore, this provision has been allowed in the Bye-laws. However, this gives monopoly power to the implementer/employer in awarding contracts and to qualify firms for bidding in the road construction contracts. The major concern expressed by construction firms interviewed was that in numerous cases, prequalification criteria designed by the client (i.e., public sector procurers) is biased towards a single entity. These participation requirements unreasonably limit the number of firms that can participate in the tender. For example, a contracting agency may put a condition in the

[48] Refer to role of PEC

criteria for bidding that the applicants must have experience in construction works in the province of Balochistan. In such a case, all eligible applicants who have operative capability otherwise, may not be able to participate unless they have work experience in Balochistan and hence, limit competition. Moreover, by reducing the number of competing firms, collusion becomes easier for the remaining firms who tend to indulge in collusive tendering.[49]

7. The aforementioned criteria can also take the form of additional financial requirements. This concern was raised by the Constructors Association of Pakistan (CAP) which stated that for CPEC projects floated by NHA, the requirements included past contract completed worth PKR 8.4-9.8 billion. It was noted that apart from M1 and M2, the average size of NHA projects was around PKR 4-6 billion and Pakistani constructors were, therefore, finding it difficult to meet this requirement, even though they had the physical and financial resources for undertaking these projects.

8. Under the Tax Ordinance, State Owned Enterprises (SOEs) are exempted from income tax. This preferential treatment to SOEs gives them a competitive advantage and an opportunity to grow and expand further. Under PSDP funded projects, the SOEs are also given waiver of bank guarantee submission in public works tenders. This reduces the cost of undertaking road construction/infrastructure projects for SOEs, whereas the private sector does not enjoy this preferential treatment. The private sector is therefore at a disadvantage while competing at bidding stage with the SOEs as these SOEs do not have to pay income tax and bank guarantee. Under the PPRA Rule 25 and Rule 39 bid security and performance guarantee are optional as the procuring agency may require the bidders to furnish bid security not exceeding 5 percent of bid price and for the successful bidder to furnish a performance guarantee not exceeding 10 percent of the contract amount[50].

5.2.1 Khyber Pakhtunkhwa (KP) Exemptions

9. The KP government has made amendments to the following which raise potential competition concerns:

    a. KP Procurement of Goods, Works and Services Rules, 2014 (Amended 2016); and
    b. KP Public Private Partnership Act, 2014 (PPP Act) through KP Public Private Partnership (Amendment) Act, 2017 ('KP PPP Act') passed on 14th April, 2017.

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[49] The Auditor General of Pakistan (AGP) has found irregularities in NHA accounts for the year 2016-17 over Rs. 400 billion due to corruption, mismanagement and misallocation of public funds. Available at: https://www.dawn.com/news/1364306, retrieved on 25th Oct, 2017

[50] PPRA Public Procurement Rules, 2004

10. According to the Rule 3(2) Clause (c) of the KP Procurement of Goods, Works and Services Rules, 2014 (Amended 2016), the KP Government is authorized to award a project to government owned organizations. Rule 3(2) Clause (c) reads:

    "the direct sourcing to a government organization for provision of works, goods or services under a cost plus or fixed contract provided that the Public Sector Organization shall not involve a private sector enterprise as a partner or in the form of a joint venture or a sub-contractor. The government organizations shall be totally government owned and controlled or semi-autonomous and autonomous agencies under the administrative control of Federal Government or Provincial Government."

11. Rule 3(2) exempts the procuring entity from "*the requirements of advertisement and response time"* in cases of emergency, national disaster or national security. However, Clause (c) itself is anti-competitive and creates an entry barrier for private firms to compete with the public sector organizations. Clause (c) gets legal cover under Khyber Pakhtunkhwa Public Procurement Regulatory Authority (Amended) Act, 2016 (KPPPRA) Act, Section 33(2)(b) that exempts government organizations/public sector procuring entities from open competitive bidding, which reads:

    "procurements through direct contracting in an emergency caused by nature or governments, for urgent requirements caused by unforeseeable events, single repeat order not exceeding fifteen percent of the original procurement, for considerations of intellectual property, if price is fixed by a government in the country or procurement from another procuring entity/public sector organization within Pakistan."

12. Section 33(2)(b) of the KPPPRA (Amended) Act, 2016 and Rule 3(2) clause (c) of KP Procurement of Goods, Works and Services Rules (Amended) 2016 are both anti-competitive as these provisions restrict the market for road construction from competitive bidding and fair competition. Furthermore, the above mentioned provisions are anti-competitive in terms of the Competition Act, 2010, as they provide an unfair advantage to SOEs, such as FWO and NLC which do not have to participate in competitive bidding and can be directly awarded contracts.

13. Similarly, for projects undertaken under the PPP mode, an amendment has been made to Section 28 of the Act, 2014, which deals with circumstances under which the concession awards can be authorized without competitive bidding process:

    "Insertion of Section 28A to the Khyber Pakhtunkhwa Act No. XX of 2014 *(1) In the said Act, after section 28, the following new section shall be inserted (both inclusive) and section 29 shall not apply to-*

a. Projects that are undertaken in Public Private Partnership mode but where the concessionaire is an entity, agency, corporation, company a consortium or other body or institution owned or controlled by the Federal Government of Provincial Government;

b. Projects where the Concessionaire is a person wherein the majority shareholder therein is state owned enterprise, entity, agency, corporation or company, owned' or controlled directly or indirectly by a foreign state; and

c. Projects undertaken in result of international obligation, commitment or arrangement of the Government arising out of an international agreement or arrangement with a foreign state or states, or any international multilateral financial institution or a person.

(2) Provisions relating to competition, advertisement, and response time so provided in Public Procurement Rules shall not apply to the projects undertaken under this section."

14. The new insertion essentially means that for projects under the PPP mode, SOEs (i.e., FWO and NLC), Chinese firms (participating in CPEC projects and are mostly state owned) and donor funded projects are exempt from the process of competitive bidding. This amendment is anti-competitive as it forecloses the market for private Pakistani and foreign entities for provincial projects initiated by the KP Government.[51]

15. **Bank Guarantees Vs Insurance:** Another concern raised by various undertakings is that the implementing agencies like NHA require bank guarantees and do not allow insurance, whereas the latter are more cost effective and easier to obtain. This is due to the fact that various concerns have been raised pertinent to the credibility of insurance companies. However, this issue can be resolved by marking credible insurance companies that can be approached for attainment of insurance for road construction projects. The standard global practice with respect to performance security, as per FIDIC requirements, is that performance security could be in the form of a bank guarantee or if it is not a bank guarantee then it shall be furnished by a financial entity registered, or licensed to do business, in the Country.[52]

16. **Security Issues:** Areas close to the western border and parts of Balochistan have major security issues which create an entry barrier for constructors and operators in road

[51] The exemption granted to CPEC projects is not time barred.

[52] Sub-Clause 4.2—Performance Security, FIDIC New Red Book, 1999.

construction sector. Both constructors and operators are unable to undertake projects in such areas. Furthermore, the implementer under section 4(4) of the PEC Bye-Laws sets additional requirements for bidding in projects that have security issues. FWO and NLC (both SOEs) are the only two constructors/operators who meet the criteria set by the implementer for projects in areas with vulnerable security. This further forecloses the market for potential new entrants and existing firms.

5. 3 Strategic Barriers

Various strategic barriers have been identified during the research in this sector which include both the incumbent firms behavior in the road construction sector as well as the role of the implementing agency which creates deterrence to entry of other firms in the sector. These are discussed below:

17. **Collusive Tendering:** Transparency in bidding process is central to competitiveness of the road construction sector. Collusive tendering or bid rigging in various road projects forecloses the market for both the existing players and the new entrants equally. During interviews conducted for the sector research this issue has been highlighted as a major, common, and recurring problem that has been prevalent in this sector. Bid suppression and bid rotation are common forms of collusive tendering that has been taking place in this sector.[53]

18. Where the road construction work is undertaken by the provincial and local authorities, the work generated for road repair and maintenance, is routine in nature and tendered regularly, i.e., in a district or city where there may be frequent small tenders for road repairs on various locations. The routine nature and frequency of the tenders may make it susceptible to collusion amongst contractors. Another aspect that is likely to facilitate collusion is if there is an approved panel of registered contractors since all the potential bidders are known to each other. For example, a tender by the District Council of Sargodha for construction of a metaled road invites tenders from approved contractors of the District Council for the year 2016-17. It is noted that forming panels for contracting out work could result in collusion among contractors since the potential bidders are known to each other and due to the routine nature of the work involved.

19. **Corruption:** The bidding process has to be kept confidential. Whereas it may be necessary to do so, another major problem arises due to this is that the process could be misused at the pre-qualification stage and the validity of the selection process may not be verified appropriately. In such cases, nepotism and favoritism is common, based on

[53] Anecdotal evidence on various road projects tendering in Gilgit-Baltistan region shows that the problem of bid rigging is so severe that even a large SOE like NLC has been facing major difficulties in winning contracts of road construction projects.

political gains. Moreover, redressal avenues are restricted for the losing competitors as even if a legal action is taken against such implementing agencies, the petitioner might win the case but they are likely to lose client permanently for future projects. This discourages the firms from pursuing legal actions against the implementing agencies.

20. **Monopsony of Implementing Agencies (Federal/Provincial/Local):** As the demand for road infrastructure project is only generated by various state institutions at federal, provincial and local (municipal) level, it gives them a strong bargaining position. The probability of abuse is high not only due to having monopsony status, but it is further strengthened by the fact that these institutions are in fact the state. Resultantly, various serious competition concerns ensue which have been highlighted in this report. This factor often creates major issues for firms in the supply side of the sector, for example, nepotism and favoritism during the process of bidding, delayed payments, unreasonable requirements and timelines for project execution, etc.

21. **Unrealistic Timelines for Project Design and Consultancy:** The consultant hired by the client/implementer is not given sufficient time for land survey, soil investigation and testing, and design of the project. Moreover, if there are changes made to the initial advertisement, the addendum also comes with an unreasonable deadline. Before the final report on the project to the client, the consultant requires sufficient time for land survey, soil and project design investigation. These factors investigation is crucial for any road construction/ infrastructure project as these ensure quality of the projects. Consequently there is lack of quality decision making by the client/implementer[54].

22. Larger consultancy firms in terms of engineers and dedicated staff for road project consultancy are able to meet these timelines, the smaller project construction consultants are unable to meet the timelines set by the implementer/client. This further acts as a barrier for the smaller firms to participate in such projects.

5.4 Other Competition Issues

23. As for violations pertinent to Section 10 of the Act, which prohibits deceptive marketing practices, various observations have been made. For this sector, potential concerns pertinent to deceptive marketing practices are likely to raise only in the ancillary markets. However, the overall mechanism of the operations of this sector is such that quality and cost requirements of the requisite inputs are already listed in the tender advertisements. Moreover, once a concessionaire submits an order with any firm in the ancillary markets, a sample of the received order is tested by the concessionaire in relevant laboratories for the purpose of quality assurance. Furthermore, the consultants hired for a project also have the responsibility to ensure that the required standards are met and so, every product used as an input in

[54] Concerns expressed by consultants and other contractors interviewed.

such projects are tested prior to use. Henceforth, the strict mechanism of quality assurance does not allow suppliers to indulge in deceptive marketing practices.

24. In addition, since there are strict monitoring mechanisms in place in this sector and the clients often require bulk orders of huge magnitude, the suppliers have the incentive to maintain a positive relationship with the clients to ensure a strong business to business (B2B) demand for their products in the future. Consequently, the suppliers have no incentive to indulge in deceptive marketing practices in the road construction sector.

5.4.1 Foreign Direct Investment (FDI)

25. As mentioned earlier, road infrastructure is a lucrative sector for foreign investors. Section 7(2) of the Construction & Engineering Works Bye Laws, 1987 (to be applied for all engineering works above PKR 04 million) demands that at least 30% of the investment is made by domestic firms. However, there is no upper limit given in these regulations pertinent to sub-letting to domestic firms by the winning foreign firms. Due to this, such foreign firms sub-contract even up to 100% of the projects to local firms. This takes place in accordance with their personal preferences as no bidding rules are applied in case of sub-contracting done by private firms. Consequently, projects may be awarded to local firms who do not have the expertise or capacity to execute projects which leads to emergence of critical issues related to the efficiency and quality of these projects.

26. Furthermore, as per Section 7(2) of the Construction & Engineering Works Bye Laws, 1987 (to be applied for all engineering works above PKR 04 million), the scope of participation by foreign bidders is restricted to "*the expertise and technology not available with the Pakistani constructor or Pakistani operator.*" Hence, the foreign firms are restrained from applying to bids which can be catered to by local expertise and technology, adversely impacting the level of competition in the sector.

27. In the road construction sector of Pakistan, many of the domestic firms enter into JVs with foreign companies due to certain intrinsic limitations of these local businesses. It has been observed that these JVs facilitate such constrained domestic undertakings in fulfilling the qualification requirements for large projects in Pakistan which they would be unable to achieve independently. This need arises due to elaborate and stringent qualification criteria of the projects, primarily pertinent to requisite budget, ensuing cost, essential expertise and other regulatory conditions demanded by large scale projects.

28. It should also be noted that in such cases, as claimed by various private companies, execution of such projects is carried out largely by the domestic undertakings, whereas the foreign firms predominantly act as *de facto* sleeping partners, not necessarily in corroboration with the particulars of the JV. This results in excessive burden on local firms undertaken due to artificial barriers created by

clients/implementing agencies while laying down requirements for projects and advertising them for competitive bidding.

5.4.1.1 Road Construction Projects under China Pakistan Economic Corridor (CPEC) and Domestic Construction Sector

29. CPEC has resulted in a manifold increase in the demand for road construction projects in Pakistan. It has also considerably altered the market structure with the entry of large Chinese entities. As mentioned earlier, the modalities for execution of CPEC projects vary slightly from other projects, with limited bidding being held between three to four Chinese companies nominated by the Chinese Government. This means that Pakistani firms cannot participate as lead contractors in these projects. Consequently the market structure is foreclosed for Pakistani firms as such projects are not completely open for competitive bidding. It should however be noted that Chinese contractors and consultants, like any other foreign participants, have to be registered with the PEC, except for in the ones who are specifically exempted in accordance with law.

30. Is should be further noted that as mentioned earlier, under CPEC agreements, the Chinese government has allowed 30 percent of the project to be sub-contracted to Pakistani contractors and consultants as per the request of the GOP. A concern has been raised by a firm regarding sublet contracting to Pakistani firms by Chinese companies who have been awarded CPEC projects. It was submitted that sublet contracting entails lower remuneration and a better option is to enter into JVs instead.

31. Moreover, the Chinese firms are primarily state owned which gives them a competitive edge over the local firms who are competing through means of their privately owned funds, capital and resources. As a consequence this disrupts the level playing field in the road construction sector. The economies of scale certainly gives a competitive edge to the Chinese firms, and may put the local industry at a competitive disadvantage. Despite foregoing, it may also encourage the local industry to invest more and innovate in the technology used.

32. Furthermore, as pointed out earlier, certain Chinese firms are also enjoying major tax exemptions, such as on import duties, income tax, etc. This has resulted in a major imbalance between the cost structures of the domestic and other foreign companies vis–à–vis Chinese companies.

33. Additionally, the documents submitted for qualification, such as financial performance, annual construction turnover, experience and qualification of personnel, and capabilities of the foreign firm at bidding are not verifiable by the local authorities. These documents are submitted in languages other than English

and there is no third party verification of these bidding documents by the implementer.[55]

34. The local firms enter into Joint Ventures with foreign construction firms (in particular Chinese construction firms). This is done by local firms to meet the pre-qualification criteria for large road construction projects. However, as mentioned earlier, in case of foreign firms, the Chinese firms also remain sleeping partners and the majority or all the civil work is done by the local construction firms. This is in violation of PEC Bye-Law 4(4).

35. In addition to above, in CPEC related projects, the scope of the consultancy services is further limited. In case of projects funded by the Government of People's Republic of China, wherein only Chinese firms participate, most of such consultancy services are mainly conducted by their own firms. The Pakistani consultancy firms operating in projects of such nature only provide services for compliance with Pakistani laws.

36. It was also discovered that the Chinese firms often bid below PC-1 (govt. estimation) and successively win the contracts. However, they later apply for various financial claims through steering the official channels.

[55] The documents submitted by foreign constructors, where these firms enter into joint venture with local constructors, are in foreign languages and often not verifiable. It has also been learnt during the research that where the translated copy of original documents is attached, they are taken at face value and not verified by a reputed third party. The PEC Bye Laws for Constructors/Operators should also include a section on verification of the prequalification documents submitted by the foreign firms in case of a JV through a reputed third party such as National University of Modern Languages (NUML) for translation of documents to English.

Chapter 6: Recommendations

In the light of the competition analysis conducted above, following recommendations are presented to enhance competition and to create a level playing field in the road construction sector of Pakistan:

1. **Break down of larger projects into optimum size packages:** Projects floated by NHA for construction of motorways and highways, under CPEC, require constructors to have experience in past projects amounting between Rs. 8-9 billion. However, the local constructors (excluding SOEs) often do not have experience in executing projects worth more than Rs. 6 billion in their portfolio, since this was the average size of most projects in the pre-CPEC period. This, as a consequence, limits the local firms from bidding in such high valued projects. In order to ensure greater participation projects may be broken down into optimum size packages. There are some examples of breaking down large scale road construction projects such as the Rawalpindi-Islamabad Metro Bus Project and the under construction Lahore-Karachi motorway M-5 various sections of which have been divided into packages. Consequently, smaller constructors will gain the opportunity to compete as well, rather than restricting participation and allowing only few large constructors of CA category to participate. There is possibility that dividing a project into very small packages could facilitate collusion between firms (i.e. by dividing the package each firm would bid for) therefore, the implementing agency needs to ensure an optimum size for packages.

2. **Monitoring of Joint Ventures in road construction projects:** Under the PEC Constructors/Operators Bye Laws, the local constructors to qualify for certain construction projects, can enter into Joint Ventures. Where these local constructors enter into Joint Venture with foreign firms, in particular Chinese firms, the latter act as sleeping partners, whereas the entire civil work of the project is executed by the local firm. This practice is in violation of Pakistan Engineering Council (PEC) Bye Laws and also has possible anti-competitive effects as other firms may not be able to effectively compete with the consortium. The implementing agency such as NHA's role is important in monitoring projects awarded under such joint venture arrangements.

3. **No preferential treatment to contractors domestic/foreign:** There should be no preferential treatment given by the government in awarding road contracts to any foreign constructor including the Chinese firms who have not performed well in the previous projects (See World Bank *Guidelines para 2.9* [56]*)*. During the study through various stakeholder interviews in the sector this issue has been highlighted, that those foreign firms have received additional projects even when their performance on the past projects was not up to the required quality standards.

[56] 2.9 *Prequalification shall be based entirely upon the capability and resources of the prospective bidders to perform the particular contract satisfactorily, taking into account their (a) experience and past performance on similar contracts, (b) capabilities with respect to personnel, equipment, and construction or manufacturing facilities, and (c) financial position.*

4. **Mechanism to check subcontracting by the implementing agency:** Both the SOEs and the private construction firms operating in road construction sector regularly further subcontract/sublet the road projects to smaller contractors (such as laying basic road foundations) and keep the more technical civil work with themselves. The SOEs and private firms meet all the prerequisites set by the implementer, whereas no proper monitoring mechanism is in place for subcontracting. The SOEs have to follow PPRA rules for subcontracting, where they subcontract to prequalified contractors, however, the subcontracting is done on preferential basis. For private firms, it should be noted that PPRA rules and PEC Bye-Laws are applicable only for the main contractor and there are no rules available on subcontracting for the private firms. These firms, therefore, sublet the road works on personal preferences. It is, therefore, recommended that there should be a proper mechanism to check subcontracting by the implementing agency to promote enhanced competition in the sector, improve the quality of projects as per the specifications given in the tender documents, and to bring transparency in subcontracting.

5. In addition to the above, most of the issues associated with the sector are incurred due to lack of a proper sector regulator. Where PPRA and PEC have appropriate rules in place for operations in this sector, they do not have the required enforcement powers which can ensure proper implementation of these rules. Therefore, it is imperative that to achieve the required implementation of rules and transparency in this sector strong enforcement powers maybe extended to a sector regulator who can take appropriate actions in case of violations of the said rules and bye-laws.

6. **Sufficient time to be given to the consultants:** During the multiple interviews conducted with various stakeholders in the road construction sector, it was found that consultants in the road projects are given unrealistic timelines for the road project design, supervision, and completion. This not only adversely affects the quality of the project, but also affects the smaller consultants, who are otherwise capable, being impracticable to meet the timelines. Consequently, the consultancy market is foreclosed for smaller players. Sufficient time, in accordance with the complexity of the project, must be given to the consultants for project design, supervision, and completion. The procuring agencies may follow the Asian Development Bank (ADB) and the World Bank (WB) *Guidelines on the use of consultants*[57]. This will not only improve the project quality, but also increase the competition in road consultancy projects.

7. **Income tax and bid security exemption to SOEs:** The SOEs have income tax exemption and under the PPRA Rule 25, bid security exemption while competing for road construction projects floated by the federal or the provincial governments. These two exemptions, as a consequence, give the SOEs a competitive edge as these lower their cost of doing business. The private construction firms, on the other hand, do not

[57] https://www.adb.org/sites/default/files/institutional-document/31481/guidelines-use-consultants.pdf.

have any such exemptions. In order to create a level playing field in the road construction sector there should be no discrimination between public and private firms and equal opportunity must be provided to all players. It is therefore recommended that either these exemptions to SOE's maybe annulled. Alternatively where these exemptions to SOEs continue, the private sector should be given a comparable cost margin at bid submission stage.

8. **CPEC and the domestic constructors in road construction:** Under CPEC the Chinese firms in road construction are receiving various exemptions, such as import duties and income tax exemptions consequently lowering their cost of doing business. The local constructors do not receive any such exemptions and therefore, this leads to discrimination between the local and the foreign Chinese construction firms. To maintain a level playing field, the local constructors should be given relief on import duties and taxation as well in order to enable them to compete in road projects. Alternatively the local bidders should be given a comparable margin of preference for the road construction projects to assist them become competitive. Under The *World Bank Standard Bid Evaluation Guide-Procurement of Goods and Works, 1996, Section 7, domestic preference* is applicable in determination of awards to the domestic firms who are *nonexempt importers.*

9. **Khyber Pakhtunkhwa (KP) Public Private Partnership (PPP) Act:** Section 28A amendment is anticompetitive as, according to it, the foreign and domestic SOEs constructors can receive road construction projects without the process of competitive bidding. Moreover, it also allows direct award of contracts to any concessionaire without the process of competitive bidding, provided that the project is either being executed in the event of an international agreement or is funded by a foreign donor. Under section 28A exemption the road construction market is restricted for private domestic firms. The KP provincial government must look into this amendment and ensure transparent competition in the construction sector.

10. **Khyber Pakhtunkhwa Public Procurement Regulatory Authority (Amended) Act, 2016 (KPPRA) Act:** Section 33(2)(b) and KP Procurement of Goods, Works and Services (Amended) Rules 2016, Rule 3(2) Clause (c) are both anticompetitive and restrict open competitive bidding for public procurement in the province. As the private sector is prevented from participation in the bidding process, it is, therefore, recommended that the provincial government may make suitable amendments in the KPPRA Act and KP Procurement of Goods, Works and Services (Amended) Rules.

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