Measuring Impacts and Financing Infrastructure in Pakistan

The Role of CPEC and FDI

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Objectives and Scope of the Study

Investment in Infrastructure: A Vicious Circle

- The importance of investment in infrastructure is widely recognised; it always accelerates economic development
- First part of the study briefly discusses the quantification of the impacts of infrastructure development on economic growth
- On the other side, the lower economic growth because of lacking in infrastructure lead to lower tax receipts and insufficient financial resources. The lower spending on infrastructure development by public sector is the consequent of lower growth. It creates a vicious circle.
- Pakistan has to face a gap of 124 billion dollars in the infrastructure development between 2016 and 2040. The size of this gap is more than total outstanding external debts of Pakistan (Ranked at 110th out of 137 countries in infrastructure development).
- The basic concern of this study is to find out the financial solution to break the vicious circle for economic growth and prosperity through developing the deteriorated infrastructure.

Annual Required Investment in Infrastructure (2016-2040)

Type of Infrastructure	Required (Billion US $ at 2015 Prices)	Required (% of GDP)	Current Trend (% of GDP)
Road	7.2	1.30	0.90
Rails	0.2	0.09	0.08
Airports	0.4	0.10	0.05
Ports	0.3	0.10	0.02
Telecom	6.1	1.10	0.85
Electricity	2.4	0.40	0.30
Water	2.6	0.50	0.25

Source: GI-Hub/ Oxford Economics (2016)

Cumulative Infrastructure Investment
(Billion US $, 2015 Prices)

Type of Infrastructure	Current Trend (2016-40)	Requirement (2016-40)	Gap (2016-40)	SDG Requirement (2016-30)
Road	137	180	43	--
Rails	5	5	0	--
Airports	6	9	3	--
Ports	3	9	6	--
Telecom	116	153	37	--
Electricity	50	59	9	137
Water	39	64	26	28
Total:	356	479	124	--

Source: GI-Hub/ Oxford Economics (2016)

Infrastructure and Economic Growth: Impacts and Direction of Causality

Quantification of the Impacts of Infrastructure

- **Several studies have quantified the impacts of infrastructure on economic growth: World Economic Forum (2011 & 2018), FPCCI (2015), PIDE- Imran and Javeria (2011).**
- **While several reputed institutions have estimated the required investment for infrastructure development in Pakistan: GI –Hub/ Oxford Economic (2016), World Bank (2017), Hussain and Zhang (2018), OECD (2012), World Bank (2017).**
- **Some of these studies have tested the direction of causality and explained that how various types of infrastructure affect the GDP growth, employment, pattern of investments, quality of life, globalization, tax revenues and trade activities**

Impacts of Infrastructure on Economic Growth: Comparison of Various Estimates

Reference/ Source:	FPCCI- Doable Scenario (2015)	WEF (2012)	Imran and Javeria (2011)
Type of Infrastructure Development/ Dependent Variable:	**GDP growth (%)**	**Per Capita GDP Growth (%)**	**Per Capita GDP Growth (%)**
SEZs/ Industrial Land Management and Housing (Venture Capital Availability) – PDFL	--	0.509	--
Railways (Connectivity and Operation)	0.3	0.306	--
Airways (Connectivity and Operation)	0.3	0.421	--
Water Supply (Availability)	0.5	--	0.327
Energy Distribution (Uninterrupted supply)	0.2	0.463	0.160

**Population growth rate of Pakistan 1.93 (2018)*

Required Financing

Type of Infrastructure Development	Investment Required (% 0f GDP) *
SEZs/ Industrial Land Management and Housing (Venture Capital Availability) – PDFL/ CPEC	$4.17 Billion
Railways (Connectivity and Operation)	0.3
Airways (Connectivity and Operation)	0.2
Water Supply (availability)	1.3
Energy Distribution (Uninterrupted supply)	0.2

* OECD and WEF (2012) for Railways, Airways, Energy distribution and water supply

Infrastructure Development in Pakistan: Modes of Financing

Infrastructure Financing: Historical Practices

- **Subsidized external debts and grants from industrialized countries for development of physical infrastructure was a common practice during the bi-polar regime.**
- **Mega financing activities including infrastructure development have been considered as public sector responsibility.**
- **Globalization and failure of fiscal policy to meet the modern infrastructure requirements emphasize the importance of private sector for investment in infrastructure projects.**

Historical Modes of Infrastructure Financing in Pakistan

- DFIs
- PSDP
- Fiscal Policy
- Monetary Policy and Bank Borrowing
- Public Debts and Bonds Market
- External Debts
- IFIs
- Populism and Failure of Public Policies: Yellow cab Scheme, PHA, CNG, Energy Policies, Construction of dams and Water Reservoirs, CPEC, SEZs

Public Private Partnership (PPP): Patterns and Mechanism in Pakistan

Evolution of PPP Policies and Procedures in Pakistan

- **1990s: Initiative for PPP policy and framework in the telecom and power sectors**
- **2005-10: Provision of infrastructure services through PPP in MTDF**
- **PPP Task Force**
- **The Infrastructure Project Development Facility (IPDF) which provides "hands-on" technical assistance to implementing agencies at all tiers of government**
- **2017: The Public-Private Partnership Authority Act**
- **Now, the following institutions play the key roles in PPP related activities:**
  - The Ministry of Finance (MoF) including 'The inter-ministerial PPP Taskforce (TF) and its working groups', 'The Infrastructure Project Development Facility (IPDF)', 'The Debt Policy Coordination Office (DPCO)', 'Project Development Fund (PDF)', 'Viability Gap Fund (VGF)' and 'Infrastructure Project Financing Facility (IPFF)'.
  - The Planning Commission and its Central Development Working Party
  - Line ministries (federal, provincial and local levels) as contracting authorities

- **The 'Viability Gap Fund (VGF)' in line with the emerging PPP program**
- **The Infrastructure Projects Finance Facility (IPFF) to provide residual long-term funding at commercial rates for PPP projects. It is a non-banking finance company (NBFC) established under the Companies Ordinance, 1984.**

Approval Process of a Project

Stages	Description	Concerned Authority
1	Identification of Project	Planning Commission/ Line Ministry/ Relevant Department/IPDF)
2	Selection and hiring of Transaction Advisor	IPDF/Line Ministry/ Relevant Agency
3	Approval for selection of preferred options for feasibility study	IPDF/Line Ministry/Relevant Department
4	Approval of Feasibility Report	IPDF/Line Ministry/Relevant Department
5	Pre-qualification and approval of bidder and PPP structure	IPDF/Line Ministry/Relevant Department
6	Approval of Project	ECC/ECNEC/CDWP and MOF and/or Board of Ministry/Relevant Department
7	Award of Project and Contract Signing	Line Ministry/Relevant Department
8	Execution of Project including financial closure	Private Party
9	Project Monitoring and Evaluation	Line Ministry/Relevant Department

Pakistan: Government Capability to Prepare, Procure, and Manage PPPs' Projects

No	Requirement/ Measure	Applicability (Yes/ No)	Detail/ Indicator
Preparation of PPPs (Pakistan' Score: 67)			
1	Central budgetary authority's approval	Yes	Both before tendering and contract signature
2	Fiscal treatment of PPPs	No	
3	PPPs' prioritization consistent with public investment prioritization	Yes	Detailed procedure not regulated
4	Economic analysis assessment	YEs	No specific methodology developed
5	Fiscal affordability assessment	Yes	No specific methodology developed
6	Risk Identification	Yes	Specific methodology developed
7	Comparative assessment (value for money analysis)	Yes	No specific methodology developed
8	Financial viability or bankability assessment	Yes	No specific methodology developed
9	Market sounding and/or assessment	Yes	No specific methodology developed
10	Environmental impact analysis	Yes	Specific methodology developed
11	Assessments included in the RFP and/or tender documents	No	
12	Draft PPP contract included in the RFP	Yes	Tender documents not available online
13	Standardized PPP model contracts and/or transaction documents	Yes	

Pakistan: Government Capability to Prepare, Procure, and Manage PPPs' Projects

No	Requirement/ Measure	Applicability (Yes/ No)	Detail/ Indicator
Procurement of PPPs (Pakistan' Score: 66)			
14	Evaluation committee members required to meet specific qualifications	No	
15	Public procurement notice of the PPP issued by procuring authority	Yes	Available online
16	Foreign companies permitted to participate in PPP bidding	Yes	
17	Minimum period of time to submit the bids	Yes	45 calendar days
18	Availability of various procurement procedures for PPPs	---	Open procedure (single-stage tendering); Restricted/ competitive procedure with prequalification stage; Competitive dialogue and/or multi-stage tendering
19	Direct negotiation not discretionary	Yes	
20	Tender documents detail the procurement procedure	Yes	
21	Tender documents specify prequalification/shortlisting criteria	Yes	
22	Clarification questions for procurement notice and/or the RFP	Yes	Answers publicly disclosed
23	Pre-bidding conference	Yes	Results publicly disclosed
24	Financial model submitted with proposal	Yes	
25	Proposals solely evaluated in accordance with published criteria	Yes	
26	Treatment when only one proposal is received	No	
27	Publication of award notice	Yes	Available online
28	Notification of the result of the PPP procurement process	Yes	Grounds for selection included
29	Standstill period	No	
30	Negotiations with the selected bidder restricted	No	
31	Publication of contract	Yes	Not available online Amendments also published

Pakistan: Government Capability to Prepare, Procure, and Manage PPPs' Projects

No	Requirement/ Measure	Applicability (Yes/ No)	Detail/ Indicator
PPP Contract Management: (Pakistan' Score: 37)			
32	System to manage the implementation of the PPP contract	Yes	Establishment of a PPP contract management team
33	Risk mitigation mechanism System for tracking progress and completion of construction works	Yes	
34	Monitoring and evaluation system of the PPP contract implementation	Yes	Private partner provides periodic information
35	Procurement authority gathers information Foreign companies permitted to repatriate income	Yes	
36	Change in the structure (stakeholder composition) of the private partner and/or assignment of the PPP contract regulated	Yes	
37	Modification/renegotiation of the PPP contract (once the contract is signed) regulated	No	
38	Circumstances that may occur during the life of the PPP contract regulated	No	
39	Dispute resolution mechanisms	Yes	Domestic arbitration
40	International arbitration Lenders' step-in rights	No	
41	Grounds for termination of a PPP contract	Yes	Consequences of termination expressly regulated

Pakistan: Government Capability to Prepare, Procure, and Manage PPPs' Projects

No	Requirement/ Measure	Applicability (Yes/ No)	Detail/ Indicator
Unsolicited Proposals (Pakistan' Score: 42)			
42	Regulation of USPs	---	Expressly regulated
43	Assessment to evaluate unsolicited proposals	Yes	
44	Vetting procedure and/or pre-feasibility analysis of USPs	Yes	
45	Evaluation of consistency of USPs with other government priorities	No	
46	Competitive PPP procurement procedure for USPs	Yes	
47	Minimum period of time to submit the bids	No	

Source: World Bank (2018)

Investment in Infrastructure Projects with PPP
($ Million)

Duration (Years)	Energy	Transport	Telecommunications/ ICT
1995-99	4298	421	76
2000-05	599	71	5572
2006-11	5334	2124	--
2012-17	4774	--	--
Total	15635	2616	5648

Source: World Bank, World Development Indicators (Various Issues)

The Largest PPP Programs in Pakistan

Project	Sector	Year of Financial Closure	Investment (Million US$)
China Power Hub Generation Company	Electricity	2017	1940
Suki Kinari Hydropower Plant	Electricity	2017	1888
Karot Hydropower Plant	Electricity	2017	1700
Hub Power Company	Electricity	1994	1632
Pakistan Deep Water Container	Ports	2010	1200
Engro Thar Coal-Fired Power Plant Phase 1	Electricity	2016	1108
Uch Power Ltd.	Electricity	1996	713
Chashma-2 Nuclear Power Plant	Electricity	2005	559
Gwadar Port Phase II	Ports	2007	550
Wak Port Qasim Power Company	Electricity	1996	515

Source: PPP Knowledge Lab (2018), Country Profile Pakistan

Constraints and Barriers in PPP

- Populism and Favoritism
- Fear and Corruption
- Determination of National Interests and Prioritization
- Regulatory and Institutional Framework Preparation, Procurement and Contract Management under PPPs
- Pakistan's Capability to Prepare, Procure, and Manage PPPs' Projects
- Weak Institutional Infrastructure at Provincial Levels
- Leverage Effects and Sustainability

Demand for Infrastructure Financing: Issues, Modeling and Complications

Measuring Sustainability of Leveraged Financing

- Supply-side constraints for development projects during the bi-polar regime
- Now developmental works are associated with external borrowing and vulnerability or creditworthiness, assessed on the basis of ‘external debt to GDP ratio’, ‘FDI to GDP ratio’, ‘debt servicing as percentage of GDP’ and ‘present value of outstanding debt to GDP ratio’.
- However, GDP is not a measure of wealth; The wealth (assets) of a nation should be estimated to assess its creditworthiness and external debts vulnerability.
- The share of debt financing in PPP infrastructure projects was 70 %, equities 26 %, and public subsidies 4 % (in 2017).
- Out of 70 percent debt: 15 % domestic (commercial) participant, 24% bilateral DFIs, 6 % multilateral DFIs, 18 % public sector external borrowing, 7 % private (commercial) external borrowing
- Out of 26 percent equities, 23 percent was from private and 3 percent from public sector.
- Long-term debt is the main source of infrastructure financing, while share of short-term financing is declining globally.
- The study shows the favorable role of ‘Short-term Financing’ in creating economic efficiencies.

Public Debt Indicators (%)

Indicator	2012-13	2013-14	2014-15	2015-16	2017-18
Gross Public Debt / GDP	64.0	63.5	63.3	67.7	67.0
Total Government Debt / GDP	60.2	58.1	58.3	61.3	61.4
Gross Public Debt / Revenue	480.1	439.7	442.1	442.5	433.6
Total Government Debt / Revenue	452.1	402.0	406.7	400.8	397.7
Debt Service / Revenue	40.5	40.1	40.4	35.9	38.3
Interest Service / Revenue	33.2	31.6	33.2	28.4	27.3
Debt Service / GDP	5.4	5.8	5.8	5.5	5.9
Revenue Balance / GDP	(2.9)	(0.7)	(1.7)	(0.8)	(0.7)
Primary Balance / GDP	(3.6)	(0.2)	(0.5)	(0.2)	(1.5)
Fiscal Balance / GDP	(8.2)	(5.5)	(5.3)	(4.6)	(5.8)

Source: State Bank of Pakistan (2018)

Public Private Partnership: Modes of Financing

- **PPP model in infrastructure development shows a positive trend worldwide. It can be classified in 3 categories:**
  1. **Government funding which is financed by the national or provincial budget**
  2. **Corporate (on balance sheet) financing which is financed by companies debt and equity and depend on the prioritization by the companies based on the opportunity costs of the alternative projects**
  3. **Project financing which creates a special purpose vehicle (SPV) based on the revenue streams**
- **Government support may be in the form of subsidies, land, contingent liabilities, and guarantees (such as the exchange rate, payment, revenue, debt, and tax breaks etc.). The government support is required also in policies, regulations, guarantees to provide security and recovery of debts and unlawful losses.**

Dependent Variable= GDP Growth (GDPG17)

Variable	Model I		Model II	
	Coefficients	T-Statistics	Coefficients	T-Statistics
Intercept	3.513	2.073	-1.766	-2.104
ENPM1217	0.026	3.808	0.038	17.214
TRPM1217	-0.009	-2.887	-0.006	-7.562
ELCLOS	-0.352	-1.743	-1.201	-9.250
CRPTN	-0.369	-3.155	-0.380	-15.974
STDBT16	--	--	0.290	6.894
Adjusted R-Square	0.6804		0.9871	
F-Statistics	4.184		90.730	

Dependent Variable= GDP Growth (GDPG)

Variable	Model III		Model IV		Model V		Model VI (Lag)	
	Coefficients	T-Statistics	Coefficients	T-Statistics	Coefficients	T-Statistics	Coefficients	T-Statistics
Intercept	-2.294	-0.601	-2.453	-0.622	-1.911	-0.394	-3.660	-13.752
EXPEDG	3.336	1.790	3.465	1.802	3.360	1.631	3.312	1.302
ELEC	-0.058	-1.102	-0.052	-0.984	-0.034	-0.291	-0.143	-0.371
FXDINV	0.111	2.664	--	--	--	--	--	--
PVTINV	--	--	0.101	2.543	0.104	2.464	0.101	0.012
ROADS	--	--	--	--	-0.001	-0.202	-0.012	-0.031
Adjusted R-Square	0.2385		0.2150		0.1641		0.2432	
F-Statistics	2.775		2.552		1.791		2.1412	

Economic Appraisal of Recently Identified Projects

Plans & Projects Suggested by Present Government

- Various infrastructural development activities in Pakistan are in progress under the 'China Pakistan Economic Corridor (CPEC)'
- While, construction of SEZs adjacent to CPEC, supply of drinking water on sustainable basis, restructuring of electricity distribution networks, restructuring of 'Pakistan Railways', revamping of 'Pakistan International Airlines', enhancing the operation and role of 'Pakistan Development Fund', the construction of large dams for water reservoirs and energy generation, construction of 5 million houses for low income peoples, and creating 10 million employment opportunities are included in the plans and projects which have not been covered in CPEC
- The creating of employment opportunities can be a spillover effect of the other projects, while investment in the construction of large dams is politically a sensitive area in present scenario. So, We assessed the significance and financial viability of remaining 5 areas, based on the suggested demand-derived model:

    1. Investment in venture capital (for construction of SEZs and low-cost housing)
    2. Supply of electricity,
    3. Supply of water,
    4. Restructuring of Pakistan Railways, and
    5. Revamping of Airways

Proposed Economic Zones attached with CPEC

Khyber Pakhtunkhwa (6 Zones):
Marble and Granite based Industrial Estate at Mansehra – 80 acres; Industrial Estate Nowshera; Expansion of Industrial Estate Hattar; Industrial Estate at Chitral; Industrial Estate Ghazi ; Industrial Estate D.I.Khan

Punjab (7 Zones):
<u>Existing /Under Development</u>
Multan Industrial Estate Phase-II; Rahim Yar Khan Industrial Estate ; Bhalwal Industrial Estate;
<u>Possible Future Industrial Estates</u>
DG Khan Industrial Estate; Mianwali Industrial Estate; Rawalpindi Industrial Estate; PD Khan Industrial City;

Gilgit-Baltistan (1 Zone): Moqpondass District in Gilgit

Balochistan (6 Zones Plus Gwadar for China Specific):
Industrial Estate in Gwadar; Lasbella Industrial Estate; Turbat Industrial & Trading Estate; DeraMurad Jamali Industrial & Trading Estate ; Winder Industrial & Trading Estate (WITE); Mini Industrial Estate Khuzdar

Sindh (6 Zones):
Chinese Industrial Zone near Karachi; Textile City, Port Qasim Karachi; Marble City, Karachi; Korangi Creek Industrial Park, Karachi; Bin Qasim Industrial Park; Kahirpur Special Economic Zone

CPEC Special Economic Zones (SEZs)

(Feasibilities of the following SEZs are shared with Chinese Side)

No.	Project Name	Location	Area (Acres)	Type of Industries
1	Rashakai Economic Zone , M-1, Nowshera	Nowshera	1000	Fruit/Food/Packaging/Textile Stiching/ Knitting
2	China Special Economic Zone Dhabeji	Dhabeji	1000	To be determined
3	Bostan Industrial Zone	Bostan (Balochistan)	1000	Fruit Processing, Agriculture machinery, Pharmaceutical, Motor Bikes, Chromite, Cooking Oil, Ceramic industries, Ice and Cold storage, Electric Appliance, Halal Food Industry
4	Allama Iqbal Industrial City (M3), Faisalabad	Faisalabad	3000	Textile, Steel, Plastics, Pharmaceuticals, Engineering, Chemicals, Food Processing, Agriculture Implements
5	ICT Model Industrial Zone, Islamabad	Islamabad	--	Steel, Food Processing, Pharmaceutical & Chemicals, Printing and Packaging, Light Engineering
6	Development of Industrial Park on Pakistan Steel Mills Land at Port Qasim near Karachi	Karachi	1500	Steel, Auto & allied, Chemical, Pharmaceutical, Printing and Packaging, Garments
7	Special Economic Zone at Mirpur,AJK	Mirpur, AJK	1078	Mix industry
8	Mohmand Marble City	Pakhtoon khwa	--	To be determined
9	Moqpondass SEZ Gilgit-Baltistan	Gilgit-Baltistan	250	Marble / Granite, Iron Ore Processing, Fruit Processing, Steel Industry, Mineral Processing Unit, Leather Industry

Impact on GDP and Required Financing

Project	Required Investment ($ Billion) *	Impact on GDP (%)**
PDFL (Including Industrial Land Management/ SEZs and Housing)	4.17	0.53
Railways (Connectivity and Operation)	0.99	0.30
Airways (Connectivity and Operation)	0.66	0.30
Water Supply (availability)	4.29	0.50
Energy Distribution (Uninterrupted supply)	0.66	0.20
* OECD (2012) for Railways, Airways, Energy distribution and water supply, while WEF (2012) for investment in venture capital ** FPCCI (doable scenario) for Railways, Airways, Water Supply and Energy Distribution impacts. *** Government has announced Rs.500 ($4.17) billion equity for PDFL (in 2015). Saudi Arab provided $1.5 billion for IPDF, which will be transferred in PDFL		

Economic Impacts of Infrastructure Financing

Project	Augmentation in:			
	GDP ($Billion)	Tax Revenue ($Billion)	Exports ($Billion)	Employment Opportunities (Million)
PDFL (Including Housing and SEZs/ Industrial Land Management- CPEC)	1.75	0.19	0.12	0.11
Railways (Connectivity and Operation)	0.99	0.11	0.07	0.06
Airways (Connectivity and Operation)	0.99	0.11	0.07	0.06
Water Supply (availability)	1.65	0.18	0.12	0.11
Energy Distribution (Uninterrupted supply)	0.66	0.07	0.05	0.04
Sum of above (5)	6.04	0.66	0.42	0.39

**Based on 'Export to GDP ratio' @ 7 percent and 'Tax to GDP ratio' is 11 percent.*

***Growth in employed labor force is 2.48 percent of GDP growth rate*

Determination & Feasibility of Leveraged Financing

Project	$LEVFIN_t$ ($ Billion)	$GDP_t(g)$ ($Billion)	$(GDP_t)(1-d)(g)$ ($Billion)*	$(GDP_t)(1-d)(g)/LEVFIN_t > ROI_t$
PDFL (Including Housing and SEZs/ Industrial Land Management- CPEC)	4.17	1.75	0.57	13.5
Railways (Connectivity and Operation)	0.99	0.99	0.59	60.0
Airways (Connectivity and Operation)	0.66	0.99	0.66	100.0
Water Supply (availability)	4.29	1.65	0.44	10.8
Energy Distribution (Uninterrupted supply)	0.66	0.66	0.40	60.0

**'d' the rate of depreciation covers annual repayment of the external capital for 5 years redemption plan, while depreciation on aggregate incremental assets is assumed 20 percent of GDP.*

Cost-Benefit Analysis

(Based on 5 Years Revenue)

Project	Change in GDP	Exports	Tax Revenue	User Charges*	C/B **
PDFL (Including Housing and SEZs/ Industrial Land Management- CPEC)	9.86	0.69	1.08	3.13	0.99
Railways (Connectivity and Operation)	5.58	0.39	0.61	0.74	0.73
Airways (Connectivity and Operation)	5.58	0.39	0.61	0.50	0.60
Water Supply (availability)	9.30	0.65	1.02	3.22	1.01
Energy Distribution (Uninterrupted supply)	3.72	0.26	0.41	0.50	0.73
Sum of above (5)	34.04	2.38	3.74	8.08	0.91

**User charges have been calculated on the basis of existing financial performance of public sector commercial enterprises in Pakistan, where the net operating income is 15 percent of equities*

***In cost-benefit ratio, benefits are the summation of tax revenues and user charges*

Impacts of Investment in Proposed Infrastructure (Difference in Difference Analysis)

Variable/ Year	2017-18 (Current Position)	2022-23 (Based on Current Trends, @ 5% GDP Growth)	2022-23 (After investment in Proposed Infrastructure)	Difference
GDP ($ Billion)	330.00	421.17	459.18	38.01
Tax Revenue ($ Billion)	36.3	46.33	50.51	4.18
Exports ($ Billion)	23.1	29.48	32.14	2.66
Employment (Million)	61.03	62.09	62.48	0.39

Primary Indicators (2018)

GDP ($ Billion)	330
Per Capita Income ($)	1640
Exports ($ Billion)	23.24
Population (Million)	201
Average Household Size	6.31
Number of Earners per Household	1.93
**Exchange rate: $=Rs.110 (in June 2018)*	

Average Monthly Households' Income

Income Groups (Quartile)	Average Monthly Income		
	2013-14	2015-16	2017-18
1st	16583	19742	23502
2nd	20436	23826	27778
3rd	24188	28020	32459
4th	29255	33668	38747
5th	53001	60451	68948
Overall	30999	35662	41026

Recommendations

Recommended PPP for Infrastructure Projects

- **The study identified, examined and recommended that investment in the following 5 areas is financially viable and highly beneficial from economic point of view:**

  1. **Investment in venture capital (for construction of SEZs/ Industrial Land Management and Housing),**
  2. **Supply of electricity,**
  3. **Supply of water,**
  4. **Revamping of air transport industry, and**
  5. **Restructuring of railways**

- **In consequence of aggregate investment of $10.77 billion incremental growth in GDP will be 1.83 percent, which will provide additional $38 billion in terms of GDP, $4 billion in tax collection, $3 billion in merchandizing exports and additional 400,000 employment opportunities during the next 5 years.**

Cautions in Use of External Financing

- **History of public finance in developing countries indicates the misuse of external borrowing for politically motivated and popular projects. The PPP approach ensures the commercial viability and economic efficiency in infrastructure projects.**

- **The model recommends that cost of external debt (investment) must be less than incremental growth in GDP. The external capital becomes a problem only if government has to generate the funds from public to pay the cost of external capital. So, external financing is still a viable option for developing countries (like Pakistan)**

- **The higher share of long-term debts in total debt financing affects GDP growth negatively. It aggravates poverty and burden of indirect taxes.**

THANK YOU