PPR

PRIME POLICY REPORT

ALTERNATIVE ENERGY IN PAKISTAN: CHALLENGES AND POSSIBILITIES

APRIL 2017

PRIME
Policy Research Institute of Market Economy
آزادمعیشت۔خوشحال پاکستان


PPR

Policy Research Institute of Market Economy (PRIME) is a public policy think tank striving for an open, free and prosperous Pakistan by creating and expanding a constituency for protective function of the state and freedom of the market. PRIME was established in Islamabad in 2013, and since then, it has published on a wide range of issues including trade, tax policy, housing, trade, public debt and energy crisis. PRIME is co-publisher of Economic Freedom of the World Report and a partner with International Property Rights Alliance.

PRIME Policy Report is a monthly publication that provides actionable intelligence at both micro and macro levels of the economy. Each report is segmented into: Business Climate Review, Market Analysis and bird-eye view of major Economic Indicators. It is a one stop information hub for business leaders, SMEs, Corporations, trade commissioners, MNCs, Institutions and Individuals aspiring to understand the policy dynamics, business prospects and interpretations of key economic indicators.

PPR Editorial Team
Ali Salman - Chief Editor
Ayesha Bilal - Research Editor
Amna Memon - Staff Economist
Sohaib Jamali - Series Editor
Zia Banday - Policy Analyst
Mehvish Shah - Chief Designer

Published by: Policy Research Institute of Market Economy (PRIME)
APRIL 2017

For inquiries, contact:
Syed Ali Ehsan – Marketing Manager, PPR
Email: info@primeinstitue.org
Mobile: 0333 0588885

Mailing Address:
PRIME Institute Office 401 Gulistan Khan House,
82-East Fazal-ul-Haq Road, Blue Area,
Islamabad, 44000, Pakistan.
Tel: 00 92 (51) 8 31 43 37 - 38 Fax: 00 92 (51) 8 31 43 39

www.primeinstitute.org

CONTENTS

Business Climate Review

by Ali Salman

The Business Climate Review sums up important developments spanning the entire federal government economic governance over the previous month. It discusses possible consequences of decisions, policies, and regulations announced by the federal cabinet, regulators and Federal Board of Revenue for the business climate of Pakistan. The analysis is based on the idea that economic freedom is good for the business climate and any law that increases arbitrariness, red-tape, and government involvement is counterproductive. Also, we believe that the government should not choose winners and losers by legalizing exemptions or favours.

The Price Ceiling on LPG is Bad News for Consumers and Investors Alike

The Oil & Gas Regulatory Authority (OGRA) of Pakistan has introduced a price ceiling on Liquefied Petroleum Gas (LPG) by capping it at PKR 910 per 11.8 kg domestic cylinder. According to one news item (Express Tribune, 3 March), LPG marketing companies have protested against this intervention and termed it a move that will lead to shortages, promotion of black market activities, overcharging, and social unrest. The industry is of the view that this move "would kill the industry and make its business financially unviable." Economics 101 lays out the harmful effects of price controls – sooner or later these measures may negatively impact the economy, whereas in the short term such a policy may be perceived positively by consumers. LPG has remained a deregulated sector, which has increased its consumption as well as investment. According to the Economic Survey of Pakistan (2015-16), as of February 2016 this sector has received about PKR 22.33 billion in investment in marketing, storage and filling and more investment is expected in the construction of auto refuelling stations. The investors also anticipate a stable policy, and a sudden change in price policy can act as a deterrent. Thus the recent move of OGRA to introduce a price ceiling is uncalled for and the previous policy of no intervention in this competitive market should be restored while making sure that there is a level playing field.

The Non-enterprising Pakistan State Enterprises

The State Bank of Pakistan's (SBP) Statistical Bulletin for March 2017 has revealed that the debt of Public Sector Enterprises (PSEs) last year increased 36.7 per cent, much higher than the increase recorded in previous years. Debt grew 6.6pc in 2015, for instance. One of the major promises made by the PML-N government when it assumed power in 2013 was reforms in the PSEs, whereas the Prime Minister himself has claimed multiple times that it is not the business of the government to do business. However, the government has not only continued to engage in business and failed in its privatisation programme, but also increased its investment in PSEs – Pakistan International Airlines is a case in point. At this time, there is not even a minister or a former head of the Privatisation Commission. Among his numerous tasks, Mr Ishaq Dar is also looking after the Commission. The former chairman of the Commission has been promoted to the Governor of Sindh. It is likely that in the remainder of the PML-N government, debt on PSEs will only increase, as no institutional reforms have been undertaken. One possible manifesto target for the next government could be to actually constitute a high powered commission to examine all PSEs and recommend a course of action – continue ownership or divest control.

Transaction Tax Increases Transaction Costs

According to a news item (Dawn, 12 March), cash business in Pakistan has ballooned to PKR 4.8 trillion, up from PKR 2.6 trillion, a high increase by 85%. The news story has relied on the "substantially reduced collection of withholding tax on banking transactions in 2016." This can be a classic case of 'good intentions, bad consequences' which normally follow when sound economic principles are ignored. The federal government introduced withholding tax on cash withdrawal from banks to discourage cash transactions and to bring more people into the tax net by imposing a lesser withholding tax for 'tax-filers'. The result was that instead of more people becoming part of tax net, more people actually left the banking net, as this news story suggests. Transaction tax is a bad idea, and it only can only result in fewer formal transactions. It is also disproportionate to the business income, which can vary across sectors. Taxes should only be imposed on income and consumption, and a tiny bit on wealth. Thus the government should go for a reduced, flatter and universal tax rate instead of targeting transactions.

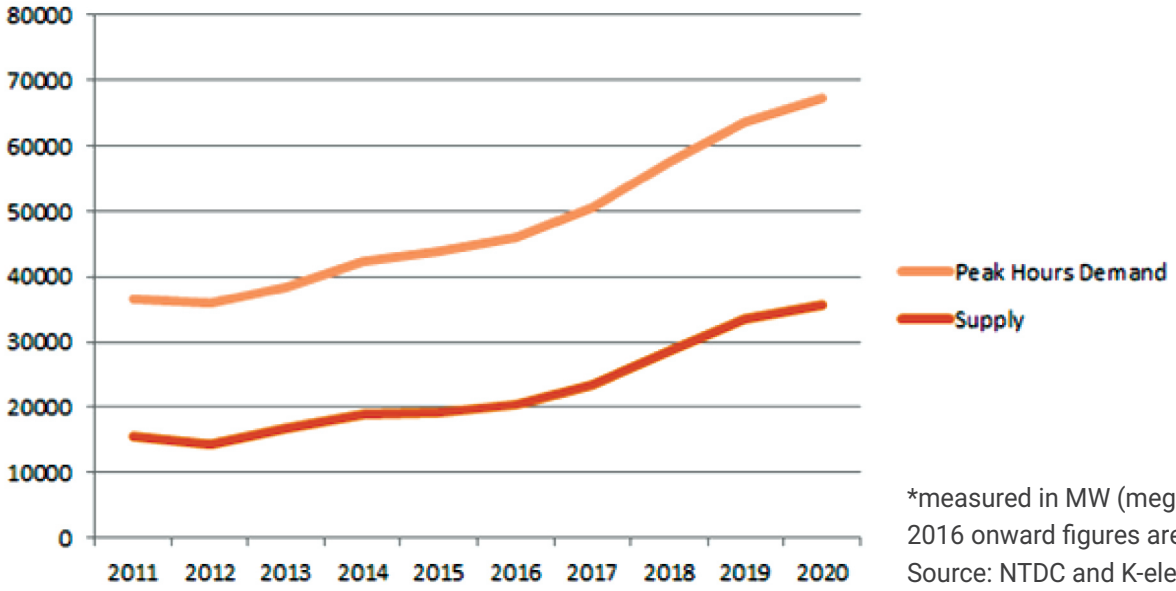
MARKET ANALYSIS

Alternative Energy in Pakistan:
Challenges and Possibilities

Introduction

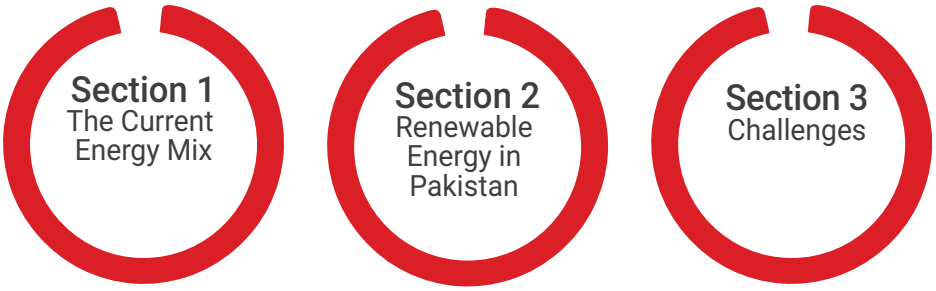
Pakistan has been facing a severe energy crisis since 2007, due to severe power and natural gas shortages. It is no secret that many areas of Pakistan face load shedding, which can go up to 12 hours a day in the summer. Pakistan's current energy shortfall in the power sector is at an average of 4000 megawatts.[1] Some sources estimate this shortfall to be much higher, at around 7000 MW or 32% of total demand. As shown in the graph below, the supply of electricity consistently falls short of demand, even in figures projected beyond 2016.

Electric Demand and Supply



*measured in MW (megawatts)
2016 onward figures are projected
Source: NTDC and K-electric

Structure of the analysis



[1] Ali Shan Azhar, "Will energy shortage be overcome?" Dawn, 3 April 2017, http://epaper.dawn.com/DetailNews.php?StoryText=03_04_2017_603_003.

The power sector is embroiled in a number of chronic problems. These mainly stem from governance issues and circular debt. Apart from the aforementioned shortfall in supply, there is a lack of investment, and high transmission and distribution losses. Furthermore, the rate of growth of overall energy consumption (including household and industry consumption), which is an important measure for human development, is fairly stagnant.[2]

It has been estimated, according to research last conducted in FY 2012 that power outages due to the energy crisis cost Pakistan as much as 7% of its GDP, and that electricity shortage has slowed down economic growth by around 2%. The energy crisis has also led to the relocation of international investors, shutting down of local businesses, exacerbated unemployment, increased inflation due to expensive energy sources, and frequent protests against load shedding.[3]

The following table summarizes the demand and supply side causes contributing to the energy crisis:

Demand-side Factors

Increase in consumption of energy: between 1972 and 2014, household electricity consumption has grown at an average of 10% per annum.

Inefficient consumption: the use of electrical appliances has shot up, leading to inefficient consumption through wastage of electricity. A 2008 Asian Development Bank Study has shown that there is an efficiency gap of 26 per cent in household appliances i.e. more than a quarter of household electricity is wasted.[4]

Supply-side factors

Falling investment: Investment in the power sector has fallen from a maximum of 1.5% in the 1980s-1990s, to about 0.7% of GDP in the last decade. The sector thus suffers from a lack of incentives to improve efficiency.

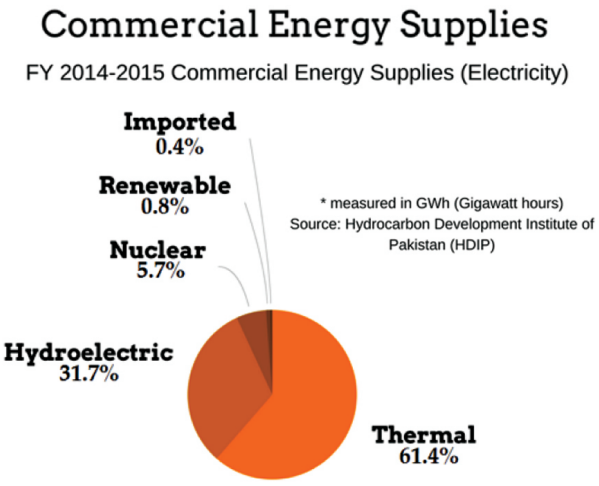
Weak governance and policies: In spite of sufficient installed capacity, production falls short of demand because of seasonal fluctuations in hydel capacity. This also stems from an inability to pay for electricity generation as consumer tariffs are not adjusted to meet the higher cost of production.

Transmission and distribution losses: Losses of up to 10% are normal, but these exceed 20% in Pakistan.

These issues persist mainly because of inefficient governance. Circular debt, a consistent shortfall in payments, results from the large subsidy that is used to cover electricity costs. Residential subsidies in Pakistan amounted to around 0.8% of GDP in 2014-2015, almost the same as the country's expenditure on the health sector.[5] Because of this unsustainably large amount, subsidy payments tend to be delayed, which causes the delay or cancellation of important investments in the power sector. Circular debt amounts to more than USD 3 billion.[6] Further, governance issues manifest themselves in the form of transmission and distribution losses, and the lack of prosecution of electricity theft.

2 Raftaar, Energy in Pakistan: Chronic Shortages, Concrete Solutions, http://www.raftaar.pk/includes/assets/img/DFID_PDF.pdf.
3 Ibid.
4 Raftaar, Energy in Pakistan: Chronic Shortages, Concrete Solutions, http://www.raftaar.pk/includes/assets/img/DFID_PDF.pdf.

The disparity between installed power capacity and actual generation is also a key issue. For instance, the Water and Power Development Authority (WAPDA) has added only 7116 MW of hydropower to the national grid since its creation in 1958, even though Pakistan possesses resources to generate more than 60,000 MW.[7] These issues arise due to transmission and distribution losses, and weak governance due to which revenue from consumers fails to cover the cost of producing electricity.



Alternative energy sources are often promoted as a means to not only ease Pakistan's energy crisis, but also to reduce the impact of energy production on the environment. Since Pakistan has an abundance of renewable energy sources such as wind, solar, and biomass, adopting these sources as a means to produce energy is a viable path that could ease the country's power woes, if not eliminate them completely.

The following report provides an overview of Pakistan's current energy mix and adoption of renewable sources of energy, as well as the challenges and possibilities inherent in adopting these in the Pakistani context.

The Current Energy Mix

Pakistan's current energy mix consists of a large chunk of thermal power, totalling about 61.4% as of FY 2014-2015. On the other hand, hydroelectric and renewable power sources, both cleaner forms of energy, make up a combined 32.5% of the commercial energy supply, a little more than half of thermal power.

Since Pakistan does have the installed capacity to produce a large amount of clean or renewable energy, why is it unable to do so? Apart from the aforementioned transmission and distribution issues, interprovincial deadlocks on water storage projects such as Kalabagh Dam, coupled with a lack of funding or research, has led to the widespread adoption of thermal power generation as a quick, inexpensive fix for power shortages.[8]

Thermal power is not only expensive, but it also harms the environment and has led to a neglect of Pakistan's vast hydropower resources. Under the current China-Pakistan Economic Corridor (CPEC) framework, major funding has been received for coal-based energy financing, especially Thar Coal. The coal-based projects are expected to have a combined capacity of about 5000 MW, to be made operational in 2018.[9] Though these coal-based projects may ease Pakistan's energy crisis, they come with their own environmental footprint in the form of harmful gases polluting the atmosphere during energy production.

---

5 Thomas Walker, Ezgi Canpolat, Farah Khalid Khan, and Adea Kryeziu, "Residential Electricity Subsidies in Pakistan: Targeting, Welfare Impacts, and Options for Reform," World Bank Group, December 2016, http://documents.worldbank.org/curated/en/918461481635891184/pdf/WPS7912.pdf.

6 Ibid.

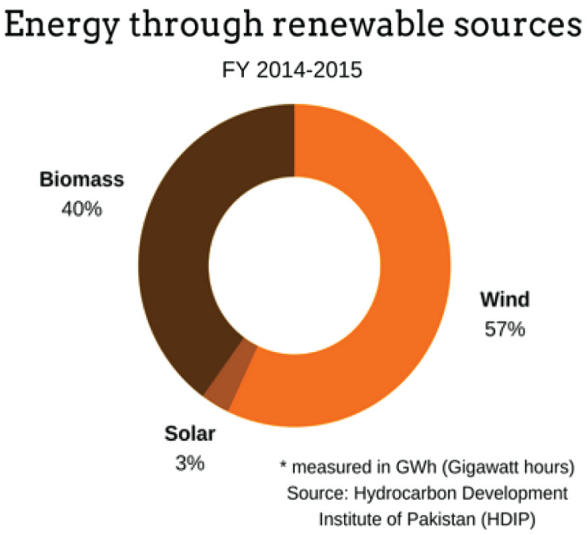
7 Nasir Jamal, "Preventing hydropower potential wastage," Dawn, 17 April 2017, http://epaper.dawn.com/DetailNews.php?StoryText=17_04_2017_601_006.

At this point, it is important to take note of the measures Pakistan is taking or intends to take in order to generate power without having a significant negative impact on the environment. The following section takes stock of Pakistan's renewable energy production.

Renewable Energy in Pakistan

As of FY 2014-2015, Pakistan obtained 0.8% of its total energy supply from renewable sources, including solar, wind, and biomass energy. This amounted to a total of 802 Gig watt-hours (Gwh), of which the major fraction was wind power.[10]

The breakdown of power generation from renewable sources is given in the graph below. As shown, solar power makes up the smallest portion.



Five wind, one solar, and three biomass projects generated power.[11] The breakdown of these projects and the provinces they operate in is given in the table below.

Energy Source	Project	Capacity (MW)	Location
Wind	Fauji Fertilizer Company Energy	49.5	Jhampir, Thatta (Sindh)
	Zorlu Enerji Pakistan	56.4	Jhampir, Thatta (Sindh)
	Three Gorges First Wind Farm Pakistan	49.5	Jhampir, Thatta (Sindh)
	Foundation Wind Energy-II	50.0	Gharo, Thatta (Sindh)
	Foundation Wind Energy-I	50.0	Gharo, Thatta (Sindh)
Solar	Quaid-e-Azam Solar	100	Bahawalpur (Punjab)
Biomass (Bagasse co-generation)	Jamaldin Wali (JDW)-II	26	Rahim Yar Khan (Punjab)
	Jamaldin Wali (JDW)-III	26	Ghotki (Sindh)
	Rahim Yar Khan (RYK) Mills	30	Rahim Yar Khan (Punjab)

Twenty-seven further wind projects and twenty-eight solar power projects are in different stages of development. On the recommendation of the Alternative Energy Development Board (AEDB), the government also initiated Biomass/Bagasse cogeneration in February 2013, to generate electricity from sugar mills. Three projects are operational, and nine more sugar mills are planned for inclusion. Altogether, the wind, solar, and biomass projects underway will add around 2600 MW to the grid. [12]

According to government reports, it appears that Pakistan is making significant headway on alternative energy sources. Though power generation from existing projects is not too high, it appears that new projects are fast cropping up and will soon make a significant contribution. The possibilities associated with adopting renewable energy sources are illustrated in the following box, which summarizes the success story that is California, USA. [13]

8 Ishrat Husain, "Corridor of Power," Herald, 2 June 2015, http://herald.dawn.com/news/1153156.
9 Nasir Jamal, "Preventing hydropower potential wastage," Dawn, 17 April 2017, http://epaper.dawn.com/DetailNews.php?StoryText=17_04_2017_601_006.
10 Ali Shan Azhar, "Will energy shortage be overcome?" Dawn, 3 April 2017, http://epaper.dawn.com/DetailNews.php?StoryText=03_04_2017_603_003.
11 Ibid.
12 Ministry of Finance, Pakistan Economic Survey 2015-2016.
13 Sammy Roth, "California is shattering solar records. This bill could take renewable energy to the next level," The Desert Sun, 28 March 2017, http://www.desertsun.com/story/tech/science/energy/2017/03/27/california-shattering-solar-records-bill-could-take-renewable-energy-next-level/99536342/.

Box: California taking renewable energy to the next level

California currently generates more than 9000 MW of solar power, and has long had a goal of achieving 50% clean energy by 2030. The state has recently upped this goal to 100%.

The city boasts five operational solar projects. Just one of these, built on a 125 acre former landfill, produces enough energy to power 2250 homes. The massive growth of the solar industry has generated 100,000 jobs in California.

This has resulted in an oversupply of solar energy. Storage for energy is still too expensive, so this is a dilemma that is yet to be solved. The state is looking into trading power with neighbouring states, battery storage, and more charging stations for electric vehicles. Experts suggest that the government should adhere to its end goal of 100% clean energy, and allow market mechanisms to drive prices down themselves.

Pakistan indeed appears to present a number of optimal conditions for adopting alternative energy sources

1. In terms of hydropower, the generation potential is around 60,000 MW, whereas less than 10% of this potential has been harnessed thus far. With five major rivers and their numerous tributaries, Pakistan is an ideal country for hydel energy. Resources in the north offer sites for large-scale (100 MW to 7,000 MW) power projects, while smaller projects (less than 50 MW) can be installed throughout the rest of the country. A canal system with over 58,000 km watercourses, farm channels, and field ditchers running another 160,000 km in length give potential for hydel plants ranging from 1 MW to more than 10 MW at numerous sites. Khyber Pakhtunkhwa currently has more than 50 micro-hydel power stations, which it hopes to increase to 1000 in a few years – enough to power a million households. Small projects will hopefully address the issue of unpredictable water flow in different seasons. [14]

2. Pakistan has one of the highest solar insulations in the world. As per the Pakistan Renewable Energy Society, the average solar radiation is 5.5 KW per square metre and there are more than 300 clear days each year. The country faces eight to nine clear hours of sunshine per day, and the potential for solar energy in addition to photovoltaic opportunities is an unbelievable 2.9 million MW. [15]

Moreover, a large portion of Pakistani population lives in villages and rural areas that are disconnected from the national grid. Connecting them to the grid would be significantly costlier, so these areas present great potential for solar panel adoption.

3. The potential for wind energy is estimated to be near a whopping 340,000 MW (PRES). According to a survey conducted by Pakistan Meteorological Department, the Sindh coastal area has the greatest generation potential – 43,000 MW over an area of 9,700 sq. km. The annual power density of the area is 408.6 W/m2, making it suitable for large economically viable wind farms. [16]

Nonetheless, it is beneficial to diverge from state reports and take a look at the challenges inherent in adopting alternative energy sources to address the

[14] Manzoor Ali, "KP Government to expand micro-hydel power station programmes," Dawn, 21 June 2016, https://www.dawn.com/news/1266234
[15] Mariam Shafqat, "Pakistan has 2.9 million MW solar energy potential," The Express Tribune, 17 March 2017, https://tribune.com.pk/story/1357453/going-green-pakistan-1-9mw-solar-energy-potential/.
[16] Pakistan Renewable Energy Society, http://www.pres.org.pk/category/reaepakistan/re-scenario/.
[17] Zofeen T. Ebrahim, "World's largest solar park to light up Pakistan's future," Dawn, 8 September 2015, https://www.dawn.com/news/1205484.
[18] "Why wind energy?" Pakistan Meteorological Department, http://www.pmd.gov.pk/wind/wind_project_files/Page767.html

nation's needs. The next section takes a look at this.

Alternative energy sources in Pakistan: Challenges

Firstly, all alternative energy sources – wind, solar, hydroelectric – incur a massive initial investment. Once installed, the energy is produced virtually free of cost. However, the capital expenditure and associated maintenance costs make the undertakings expensive and longer to break even, especially on a levelled tariff. In order to break even on the investment sooner, the tariff would have to be exponentially higher. It is essential that a solution to circular debt be devised, as untargeted subsidies are worsening the issue.

Secondly, there is the issue of efficiency. Neither solar nor wind energy is particularly efficient; solar power plants can deliver on around 20 per cent of the installed capacity[17] whereas wind power can give 25 per cent efficiency at best.[18] Furthermore, hydroelectricity can be unpredictable, as the flow of water in rivers and canals varies according to the seasons.

Thirdly, there is a clear lack of incentives from the government to facilitate private sector investment in renewables (only recently did the budget for Fiscal Year 2016 introduce the duty free import of solar panels). Regarding government policies, there is a clear focus on politically motivated short-term solutions that give immediate results such as coal and LNG, as the renewable projects – especially hydel – take time. Adding to that is the fact that there is significant bureaucratic red tape involved in getting permits from the NTDC.

Hydel power alone suffers from a number of issues. Successive governments have had issues in securing funding for massive hydel projects which end up unfinished and in limbo, such as the Diamer-Bhasha dam. Moreover, strained relations with India over the Indus waters present a threat, with donor agencies that would be financing the project telling Islamabad to secure an NOC from India.[19]

Alternative energy sources are therefore not without issues. Pakistan should nonetheless adopt them as a failsafe measure and in order to diversify its energy mix, even if a solution to the energy crisis or high power tariffs is not to be found in these measures. Furthermore, more adoption of renewable energy technology is likely to drive prices down through market mechanisms, making this a more viable option.

Even if Pakistan is unable to adopt renewable energy technologies at the level of California, encouraging consumers to install solar lights or solar geysers is a measure that can certainly be undertaken. As Pervez Hoodbhoy points out, reverse metering can be introduced to send excess solar energy from households back into the grid.[20] There is a need for innovative solutions such as these, so that renewable energy can become a part of people's everyday lives.

---

19 "CPEC has done wonders for investment in coal power – Akhtar Ali, Member Energy, Planning Commission of Pakistan," Business Recorder, 18 March 2016, http://fp.brecorder.com/2016/03/20160318826974/.

20 Zofeen T. Ebrahim, "Pervez Hoodbhoy goes solar for his household energy needs," Dawn, 18 February 2017, https://www.dawn.com/news/1315342.

Conclusion

Economies with ample and inexpensive energy tend to experience rapid and sustained economic growth – a state Pakistan will be unable to achieve unless it solves its energy crisis.

A multifaceted response is required for this. There is a need to attract new investment, resolve financial issues, and improve governance. Allowing market mechanisms to take care of new investments would prevent government liabilities from accumulating, and ease the burden of current untargeted subsidies.

Generation from renewable sources is one of the ways to ease the shortage. Adopting even small measures, such as solar water heaters at the household level, may help scale back the energy shortage by up to 40%.[21] This can also ease the burden of sudden developments, such as spikes in world oil prices.

Any solution to the energy crisis has to be a long term one, and one that addresses structural problems, including supply-side issues, circular debt, and weak governance. The struggle is an uphill one, but one that can surely be overcome.

[21] Raftaar, Energy in Pakistan: Chronic Shortages, Concrete Solutions, http://www.raftaar.pk/includes/assets/img/DFID_PDF.pdf.

SNAPSHOT OF KEY ECONOMIC INDICATORS

Outlook of Pakistan's Economy (July-April FY17)

As the close of the current fiscal year draws near, the 5.7% GDP growth target set by the government seems to be out of reach.

Pakistan's trade deficit, for example, has reached an all-time high of about USD 23.4 billion, increasing by 38.8% over the first nine months of the financial year. When PML-N entered government in 2013, this figure was at about USD 20.4 billion, and has increased because of consistently rising imports and falling exports. In March alone, the trade deficit reached USD 2.3 billion. According to Commerce Minister Khurram Dastgir, the import bill consists of a surge in power generation, data processing, construction, and agriculture machinery.

Exports are at around USD 16 billion for the first 9 months of FY17, close the last year's figure for the same period. Meanwhile, imports for the same period have risen 14%, from around USD 30 billion to about 34 billion.

Industrial growth also remains sluggish, with the Large Scale Manufacturing (LSM) growth rate falling to 4.12% over 8M-FY17, compared to 4.33% for the same period last year, and 5.44% for 8M-FY14.

In relatively good news, Foreign Direct Investment in Pakistan has risen 12% for 9M-FY17, year over year. Exports of services have also risen 6%.

Experts believe that the economy of Pakistan cannot get the desired momentum unless there is an improvement in the overall business climate. In the recently revealed Doing Business Index ranking (DB 2017), Pakistan's rank has declined in "Starting a Business", "Getting Electricity", "Protecting Minority Investors", "Paying Taxes" and "Enforcing Taxes". Overall, out of 10 indicators Pakistan's ranking has declined in five and improved in only two.

It is in Pakistan's interest to resolve structural issues within its economy, and focus on giving a boost to manufacturing and exports. Hopefully the coming year will see an improvement in Pakistan's economic indicators.

Table 1: Economic Snapshot

Particular	Reporting Period	Value
T-Bill		**(%)**
03-M	Mar-17	5.9
06-M	Mar-17	5.9
12-M	Mar-17	5.9
PIB 10-years	Mar-17	8.1
6-M Kibor	Mar-17	6.1
Discount Rate	Mar-17	5.8
Inflation	**Mar-17**	**4.9**
External Indicatrors		**($ Bn)**
Export	Mar-17	2.7
Import	Mar-17	5.0
Trade Deficit	Mar-17	-2.3
Home Remittances	Mar-17	1.7
Current Account	Mar-17	-562
FDI ($ Mn)	Mar-17	297
Public Finance		**(Rs. Bn)**
Tax Collection	Dec-16	38
Direct Taxes	Dec-16	18
Indirect Taxes	Dec-16	20
Credit to Private Scetor (Rs. Bn)	As of Mar 17	4,490
LSM growth MoM (%)	Feb-17	1.0
FX Reserves ($ Bn)	14 April 17	21.6

Sources: SBP, Finance Ministry

Table 2: Key Targets and Projections

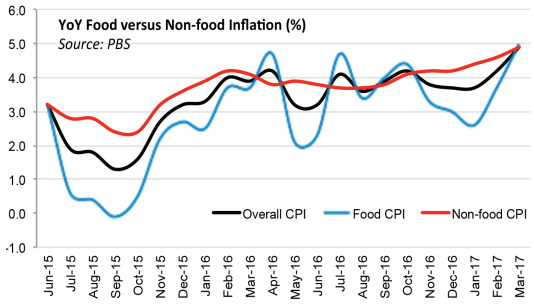
	Govt Target*	SBP Projection**	IMF Projection***	ADB Forecast****
		Percent		
Real GDP Growth	5.7	5.7	5	5.2
CPI- Full year average	6	4.5 - 5.5	5.2	4.5
		% change		
Export	n.a	n.a	4.1	n.a
Import	n.a	n.a	9.9	n.a
		% of GDP		
Current a/c Balance	n.a	n.a	-1.8	-1.2
Fiscal Balance	-3.8	n.a	-3.8	-5.3
Remittances ($ Bn)	n.a	n.a	20	n.a
Tax Revenue (Rs. Bn)	3,956	n.a	4,244	n.a

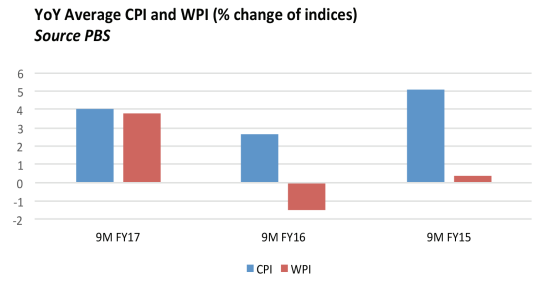
*Sources: *Budget in Brief 2016-17, **Monetary Policy Statement, ***IMF Country Report (June 2016), ****AsianDevelopment Outlook 2016*

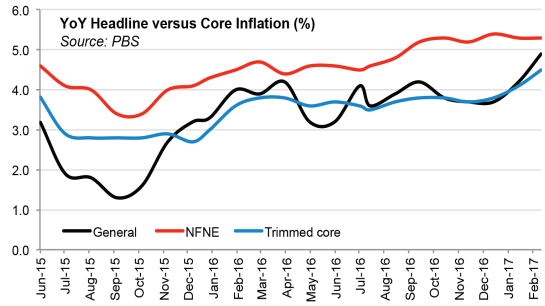
Table 3: Balance of Payment Account - Key Items Only

$ (Mn)	9M(FY17)	9M(FY16)	% change
Current Account Balance	-6,130	-2,351	n.a
Balance on Trade in Goods	-17,782	-13,356	
Exports of Goods FOB	16,107	16,328	-1%
Imports of Goods FOB	33,889	29,684	14%
Balance on Trade in Services	-1,977	-2,033	
Exports of services	4,322	4,084	6%
CSF inflows	93	249	-63%
Imports of services	6,299	6,117	3%
	9M (FY17)	9M (FY16)	
Workers' Remittances	14,058	14,388	-2%
U.S.A	1,730	1,859	-7%
U.K	1,655	1,808	-8%
Saudi Arabia	4,078	4,349	-6%
UAE	3,124	3,204	-2%
	9M (FY17)	9M (FY16)	
Direct Investment in Pakistan	1601	1,425	12%
U.S.A	69	-112	n.a
U.K	-121	-44	178%
Saudi Arabia	0.5	80	-99%
China	630	596	6%
Portfolio Investment in Pakistan	631	-393	-261%
Equity	-363	-350	4%
Debt	994	-43	-2412%

Figure 1: Trends in Inflation

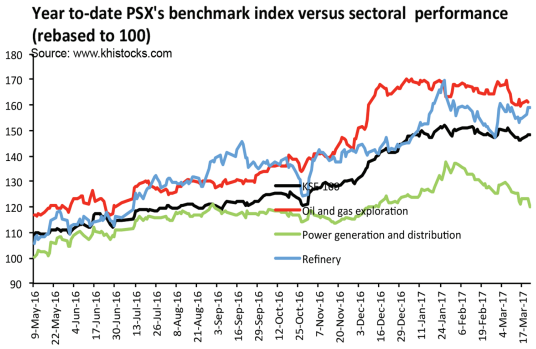


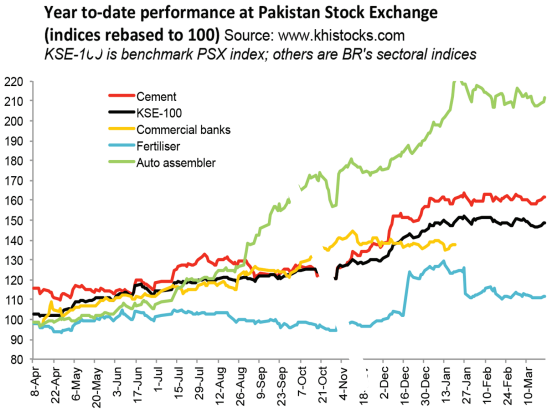




Source: PBS

Figure 2: Performance at Stock Market





Source: www.khistocks.com
KSE-100 is benchmark, PSX index, others are sectoral indices

Table 4: KEY EXPORT CATEGORIES - PERCENTAGE CHANGE 9M FY17 over 9M FY16

KEY EXPORT CATEGORIES - PERCENTAGE CHANGE 9M FY17 over 9M FY16					
Commodities (units)	**Quantity (total)**	**Price ($ Mn)**	**Price (% change)**	**Quantity (% change)**	**ARP* (% change)**
Total	n.a		-2%	n.a	n.a
Food (M.T)		2,686	-12%		n.a
Rice	2,684,622	1,171	-15%	-15%	0%
Basmati	327,830	293	-7%	-4%	-4%
Non-Basmati	2,356,792	878	-17%	-16%	-2%
Sugar	123,443	67	-50%	-58%	-100%
Textile	n.a	9,279	-1%	n.a	
Raw cotton (M.T)	22,812	39	-49%	-53%	9%
Cotton yarn (M.T)	344,468	939	-5%	5%	-10%
Cotton cloth (TH.SQM)	1,410,359	1,581	-6%	-15%	10%
Knitwear (TH.DOZ)	89,520	1,746	0%	5%	-5%
Bedwear (M.T)	263,814	1,586	5%	8%	-3%
Towel (M.T)	132,723	578	-3%	-2%	-1%
Readymade garments (TH.DOZ)	24,823	1,704	6%	5%	1%
Art, silk & synthetic textile (TH.SQM)	96,460	167	-25%	-56%	71%
Petroleum products	n.a	139	8%	n.a	
Naphtha (M.T)	87,015	32	2956%	2725%	
Other manufacturing goods	n.a	2,274	-5%	n.a	
Sports good	n.a	225	-4%	n.a	
Football (TH.DOZ)	2,387	112	-10%	-7%	-3%
Gloves (TH.DOZ)	1,683	79	15%	12%	2%
Leather tanned (TH.SQM)	11,970	252	-6%	-6%	0%
Leather products	n.a	371	-6%	n.a	
Leather garments (TH.DOZ)	595	226	-7%	-9%	2.7%
Leather gloves (TH.DOZ)	3,492	136	-5%	-7%	2%
Footwear (TH.Paris)	7,225	72	-8.9%	-21%	14.8%
Surgical goods	n.a	251	-5%	n.a	
Chemical & pharma products	n.a	621	6%	n.a	
Plastic material (M.T)	111,679	165	16%	28%	-9%
Engineering goods (TH.NOS)	n.a	126	-6%	n.a	
Cement (M.T)	3,644,625	192	-23%	-20%	-3%
All other items	n.a	740	9%	na	

*ARP= Average Realised Price

Sources: PBS

Table 5: KEY IMPORT ITEMS - PERCENTAGE CHANGE 9M FY17 over 9M FY16

KEY IMPORT ITEMS - PERCENTAGE CHANGE 9M FY17 over 9M FY16					
Commodities (units)	**Quantity (total)**	**Price ($ Mn)**	**Price (% change)**	**Quantity (% change)**	**APR* (% change)**
Total			10%		
Food Group (M.T)	**n.a**	**4,528**	**15%**	**n.a**	**n.a**
Tea	**163,136**	**411**	**2%**	**22%**	**-17%**
Palm Oil	**1,928,612**	**1,384**	**12%**	**-6%**	**18.4%**
Pulses	**956,376**	**722**	**62%**	**37%**	**18.2%**
All other food items	**n.a**	**1,516**	**18%**	**n.a**	**n.a**
Machinery Group	**n.a**	**8,821**	**42%**	**n.a**	**n.a**
Power generation	**n.a**	**2,367**	**77%**	**n.a**	**n.a**
Textile Group	**n.a**	**401**	**21%**	**n.a**	**n.a**
Electrical	**n.a**	**1,659**	**26%**	**n.a**	**n.a**
Telecom	**n.a**	**1,029**	**-2%**	**n.a**	**n.a**
Transport Group	**n.a**	**2,292**	**19%**	**n.a**	**n.a**
Road Motor	**n.a**	**1,811**	**29%**	**n.a**	**n.a**
CBU Heavy Vehicles	**n.a**	**223**	**45%**	**n.a**	**n.a**
CBU Motor cars	**n.a**	**279**	**19%**	**n.a**	**n.a**
CKD Heavy Vehicles	**n.a**	**198**	**24%**	**n.a**	**n.a**
CKD Motor cars	**n.a**	**485**	**27%**	**n.a**	**n.a**
Other transport	**n.a**	**150**	**292%**	**n.a**	**n.a**
Petroleum Group (M.T)	**n.a**	**7,749**	**27%**	**n.a**	**n.a**
Petroleum Products	**10,767,078**	**4,846**	**29%**	**55%**	**-17%**
Petroleum Crude	**5,916,854**	**1,841**	**0%**	**38%**	**-27%**
Textile Group (M.T)	**n.a**	**2,375**	**-1%**	**n.a**	**n.a**
Agriculture Group (M.T)	**n.a**	**5,548**	**4%**	**n.a**	**n.a**
Metal Group	**n.a**	**3,147**	**6%**	**n.a**	**n.a**
Iron & Steel (M.T)	**2,493,953**	**1,531**	**6.2%**	**11%**	**-5%**
Miscelleanous Group	**n.a**	**902**	**13%**	**n.a**	**n.a**
All other items	**n.a**	**3,139**	**12%**	**n.a**	**n.a**

n.a = not available; PBS does not release data *ARP= Average Realised Price

Sources: PBS

Figure 3: Trends in Exchange Rate

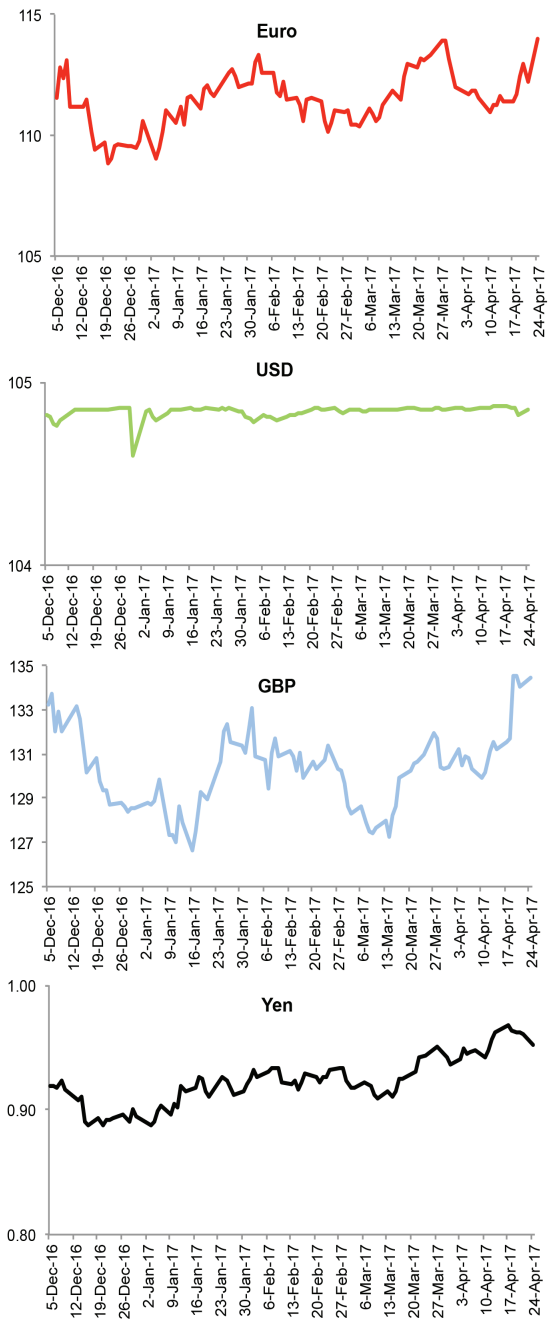


Figure 4: Key Commodities World Market

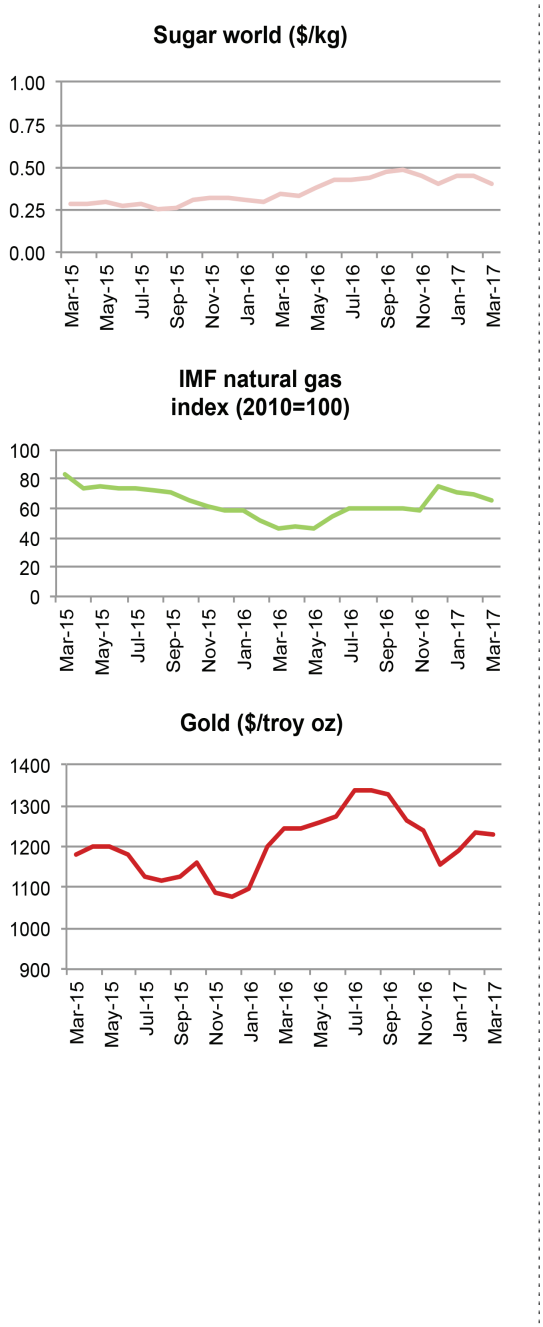


Figure 4: Key Commodities World Market

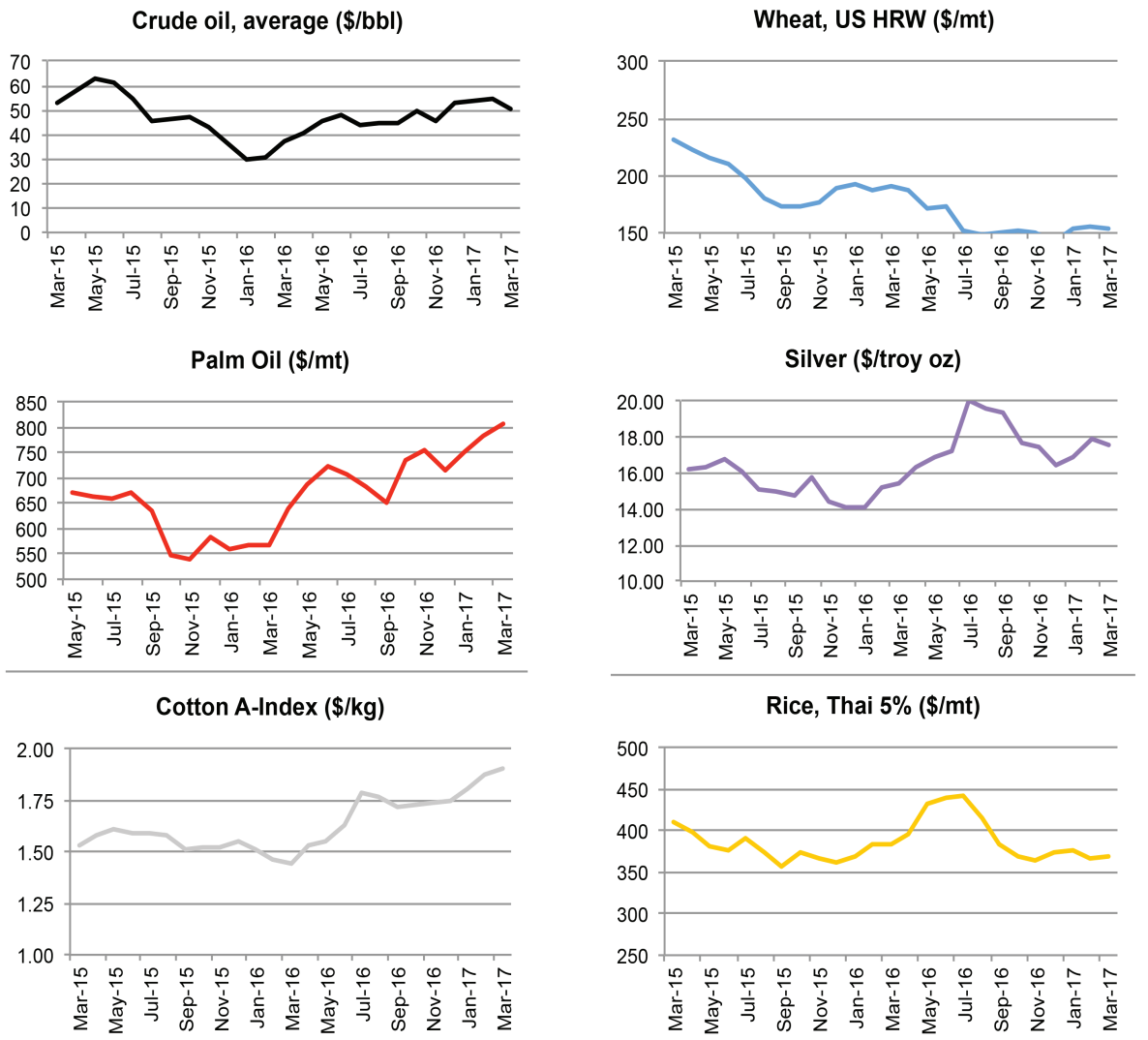


Table 6: Ease of Doing Business Index

Doing Business Rankings - Key Indices only								
	Starting a business	Dealing with construction permits	Getting electricity	Registering property	Getting credit	Trading across border	Paying taxes	Enforcing contracts
Pakistan	141	150	157	169	82	172	156	157
India	155	185	26	138	44	143	172	172
Bangladesh	122	138	187	185	157	173	151	189
Singapore	6	10	10	19	20	41	8	2
Vietnam	121	24	96	59	32	93	167	69
Turkey	79	102	58	54	82	70	128	33

Source: Doing Business

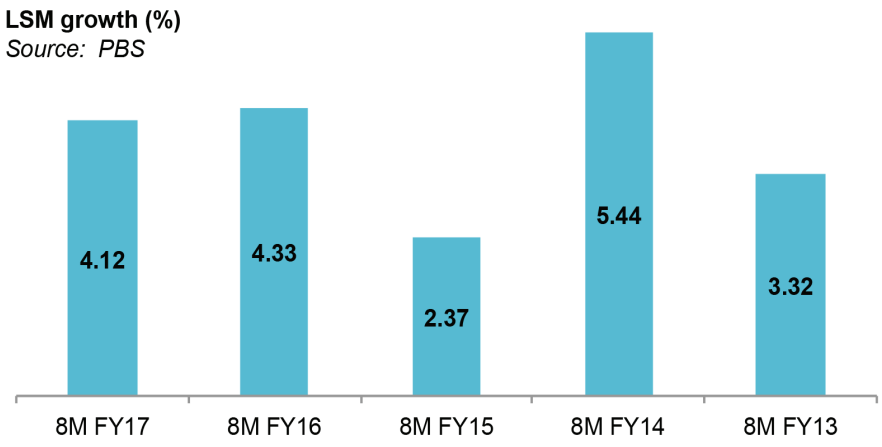
Performance of Large and Medium Scale Enterprises

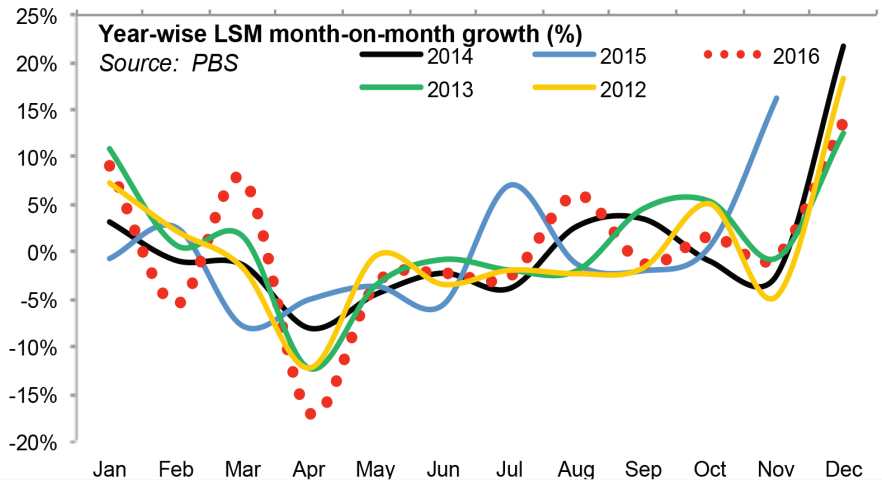
Major LSM Drivers

		Percentage change	
	Weight	5MFY17	5MFY16
Textile	20.92	0.58	0.81
Food, Beverages & Tobacco	12.37	6.90	0.78
Coke & Petroleum Products	5.51	-0.07	4.49
Pharmaceuticals	3.62	8.48	6.79
Chemicals	1.72	-2.23	11.21
Automobiles	4.61	10.04	27.73
Iron & Steel Products	5.39	8.88	-6.83
Electronics	1.96	13.39	-8.07
Leather Products	0.86	-19.49	10.57
Paper & Board	2.31	5.71	-4.38
Engineering Products	0.40	2.76	-16.01
Rubber Products	0.26	-0.05	9.99
Non-Metalic Mineral Products	5.36	7.07	8.89
Wood Products	0.59	-95.26	-54.29

Source: PBS

Performance of Large and Medium Scale Enterprises





Source: PBS

INDICATIVE TOPICS FOR PPR

01. Taxes
02. Credit Market
03. Capital Market
04. Investment Policy
05. Business Regulations
06. Civil Service Reforms
07. Research and Innovation
08. Tariffs and Trade Barriers
09. Inflation and Sound Money
10. State Owned Enterprises
11. Legal System and Property Rights
12. Human Capital, Labour Market and Regulations


PRIME
Policy Research Institute of Market Economy
آزادمعیشت۔خوشحال پاکستان

PPR