RESPONDING TO EXTERNAL SHOCKS HITTING THE ECONOMY OF UZBEKISTAN

1 June 2017

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Executive summary

1. Recently Uzbekistan government has set an ambitious goal to enter the league of higher upper middle-income countries through the implementation of sustainable development policies. As shown by recent studies, it is equivalent to 8 percent annual growth in gross domestic product (GDP) over the next 15 years (Cornia, 2014).

2. Obviously, the achievement of this goal depends not only on the government’s efforts in dealing with internal socio-economic environment but also equipping the national economy with necessary instruments to withstand and cope with a number of external shocks.

3. Past Uzbekistan experience shows that much of the success of national economy within the first and second decades of the transition was predominantly determined by favorable prices for Uzbekistan’s key export items (cotton, gold, gas), inflow of remittances, government-led investment programs, and, gradual approach to development (Pomfret, 2012).

4. On the other hand, recent shocks on the commodity markets and worsening macroeconomic environment in EU and the US have posed a question whether resource rich Post-Soviet countries such as Azerbaijan, Russia, Turkmenistan and Uzbekistan can maintain stable growth rate in the mid-term.

5. Therefore, the aim of this report is to explore the effect of 2014 global oil price drop on Uzbekistan economy. Following the traditional approach and empirical literature, the study builds its line of argument on a three potential (indirect) transmission channels of external (oil) shock on Uzbekistan economy: trade, remittances and financial channels.

6. Interestingly, that despite its more or less self-sufficiency in oil and gas, our evidence shows that Uzbekistan economy still remains very much vulnerable to external carbohydrate shocks and deteriorating global economic environment via remittances and trade channels. This has been apparent from recent global oil crisis that affected Uzbekistan economy indirectly through its impact on Russia and Kazakhstan – Uzbekistan’s strategic and key trading partners.

7. In this study, we explore the causes of the shock, transmission channels to the economy of Uzbekistan, macroeconomic policy response and the importance of IFI in allowing developing countries to overcome the shock and maintain stable growth.

8. It is obvious that the external shocks were not associated just with the reduced oil prices. Both economic (continuing global financial crisis) as well as political (situation around Ukraine) turbulences, declining oil prices, devaluation of Yuan, etc. make the crisis compounded and the prospects for the future highly un-predictable and highly volatile.

9. Taking into account that neither the decline of the oil prices (and other externalities discussed above) nor the earlier global financial crisis had direct sizable impact on Uzbekistan, and economic growth was driven by such factors as trade, remittances and structural reforms. We review the effect of external shock on the economy of Uzbekistan via a number of potential channels. It is important to note that considering that financial sector is weakly integrated to global financial system we review the effect of shock via this channel but conjecture this effect to be insignificant.

10. The external shock had mixed effect on the economy of Uzbekistan via trade channel. First, we have estimated the statistical association between the exports of Uzbekistan on one side, and GDP growth of Russia, global energy commodity price index (estimated by World Bank), and lagged GDP growth of Uzbekistan. We used yearly time series data for 1995-2015, adjusted for potential stationarity. Based on the F-test, the model is overall significant (F-stat = 11.84, above 4; p-value= 0.00). The adjusted R-squared is
above 0.8 which indicates that external environment, export prices and lagged economic
growth of Uzbekistan explain more than 80% of export growth rates.

11. The statistical modeling results show that the coefficient for the GDP growth of
Russia is positive and statistically significant at the 1% level. The quantitative meaning of
the estimate in the framework of the effect of external shock via the slump in the economy
of Russia suggests that the decline of GDP growth in Russia in 2015 (minus 3.7%) reduced
overall exports growth of Uzbekistan by nearly 5 percentage points.

12. Overall, we find that there was the effect of external shock on the economy of
Uzbekistan via trade channel, although we believe that this effect was much smaller than in
such countries as Azerbaijan, Moldova and Ukraine where exports to Russia has decreased
by 32.2%, 30% and 45.5% respectively.

13. According to international organizations remittances were among drivers of
economic growth in Central Asia. For example, UNDP (2015) reports that during the pre-
crisis period 2009-2013, remittances from Russia to Uzbekistan were more than 6.6 billion
USD and accounted for nearly 12% of GDP in 2013. However, with the decrease in oil prices
and economic recession in Russia the volume of remittances decreased. While research
suggests that in 2010 emigration rate was nearly 7% of population, it was still considerably
below than in Europe and Central Asia as a whole (10.7 percent). However, remittances do
not play such important role on the economy of Uzbekistan compared to other Central Asia
countries. For example, the Tajikistan and Kyrgyzstan are among the world’s most
remittance dependent countries as remittances account more than 25% of GDP.

14. Turning to the effect of external shock, the number of Uzbek migrants working in
Russia decreased by 500,000 to 2.2 million by January 2015 compared to August 2014.
Thus, the economic decrease in Russia as a result of oil price shock and sanctions imposed
by the Western nations had reduced the amount of remittance inflow. For example, share
of Russian remittances in GDP of Uzbekistan decreased from nearly 10% in 2014 to 5% in
2015. Although, this drop was considerably weaker compared to neighboring countries
where the reduction in remittances inflows was more dramatic. There was 69.5% drop in
the amount of transfers from Russia to Uzbekistan in H1 2016 in comparison to H1 2015.

15. Although, it is important to note that the decrease in the volume of remittance from
Russia is driven by a number of factors. First, the capacities of the Russian labour market
to absorb new labor migrants has been exhausted. The latter is related both to the economic
contraction in Russia as well as to the preferences provided to the increasing inflow of
migrants from Eastern Ukraine. Thus the pace of migration to Russia has been declining.
Still the total number of migrants (including those from Uzbekistan) was not reducing (except
for seasonal fluctuations). Meanwhile the scale of remittances got indeed reduced. The
sharp decrease of remittances as a share to GDP could be explained primarily by the
devaluated Ruble in Russia and sustained high GDP growth in Uzbekistan.

16. The external shock of 2014 had very marginal effect on the economy of Uzbekistan
through the banking sector. This is further supported by the recent trends in data. For
example, the share of non-performing loans (NPLs) in the banking sector have remained
stable, while some countries experienced increase in the volume of NPLs relative to total
gross loans. For example, share of NPLs decreased from 3% in 2008 to less than 0.5% in
2015 (Figure 13). Moreover, the share of NPL has remained stable over the past year, due
to the government’s policies aimed to strengthen financial sector (discussed below). On the
other hand, in Armenia NPLs increased from 4.3% to 7.95%. Comparing to other Post-
Soviet countries, there was considerable increase in NPLs in the aftermath of external
shock: Belarus, Moldova, Kyrgyzstan, and Armenia, while only in Kazakhstan the share of
NPLs decreased (Figure 14). Moreover, despite that theory may predict reduction in supply
of credit, in the first half of 2015 supply of credit to private sector increased by more than
30% and 55 state owned assets were privatized on the amount of 9.7 billion sums (more
than 3 million USD).
17. The strength of banking sector of Uzbekistan in the aftermath of external shock is supported by increase in total bank assets. We may see below that bank assets were gradually increasing, by more than 24% in 2016 and reached 65 trillion soums. This was in line with the President’s decree “On further strengthening of financial sustainability of the commercial banks and development of their resource base” (as of 6th may 2015). This legal framework was aimed to continue implementation of international standards, improving the supervision of banking sector, inclusive access to credit by private sector and rapid implementation of modern ICT technologies in the banking sector.

18. When considering the effect of financial channel through FDI inflows, we may see that the shock effect is absent. Overall, FDI inflow to Uzbekistan increased from 1% of GDP in 2014 to 1.6% of GDP in 2015. Moreover, turning to linkages of banking sector to Russia the FDI inflow from Russia since 2010 has been steadily increasing and have reached 6 bln. USD by 2015. Moreover, in the aftermath of falling oil priced FDI from Russia in 2015 increased by 40.2% exceeding 1.2 bln. USD. Of these investments 95% was invested in oil and gas sector and nearly 5% in the ICT sector.

19. In Uzbekistan, the monetary policy in the aftermath of external shock was aimed at maintaining balance between internal demand and inflationary pressures. The CBU refinance rate decreased from 12% in 2013 to 10% in 2014 and to 9% in 2015. At the same time, CBU maintained strict control over arrears in payments and cash turnover, and continued to stimulate non-cash payments to the public using plastic cards. The growth of money supply (M2) decreased from 32% in 2011 to 21.6% in 2015. At the same time, the overall credit portfolio in the banking sector has increased to 42.7 trillion soums. In addition, it is important to mention that despite of the external pressures the Uzbekistan’s banking sector rating assigned by Moody’s remained ‘stable’ in 2015-2016.

20. We find that due to low integration of national financial sector into global financial system, cautious banking sector policies in the aftermath of shock, ongoing government policies aimed to foster economic growth and raise the banking sector liquidity and solvency, stepwise market reforms in the financial sector, increasing the stock market size and fostering establishment of nonbank financial institutions and increasing inclusive access to credit by population (for example, microfinance) there was limited effect of external shock to Uzbek economic through financial sector.

21. Moreover, as suggested by ADB ‘Uzbekistan’s financial disclosure, supervisory, and regulatory systems are broadly in line with international standards. Other significant achievements include a well-organized payment system, and efficient internal management information systems in leading banks’. Uzbekistan has significantly improved its positions in the credit requirements of the Doing Business report. In 2016, Uzbekistan advanced 113 positions, from 154th place to 42nd. Moreover, in the aftermath of external shock Uzbekistan has went up by 63 positions.

22. In the first half of 2015, the economic growth of Uzbekistan was in line with existing trends and reached 7.5%. Similarly, industrial output increased by 7.9%, retail by 11.2%, agriculture by 6.3% and services by 13.1%. Moreover, entrepreneurial activities were constantly increased during this period, as number of new private enterprises have increased by 8000 (+10.2%) compared to January-June 2014. Due to active implementation of government programs more than 141 000 new jobs were created, of which 62.6% in the rural area. While government forecasted to have budget deficit equal to 1% of GDP, as a result of deteriorating external environment, the 2015 fiscal year was closed with 0.1% surplus.

23. To eliminate the potential effect of external shock on the economy of Uzbekistan government further carried out implementation of measures to sustain rapid economic growth. For example, as of 2015 the economy of Uzbekistan accommodated investments worth of 40.7 trillion soums which is 9.6% above of what have been achieved in 2014. Of
these investment funds FDI accounted for more than 3.3 bln. USD which is 9.1% above 2014.

24. The central bank refinance rate decreased from 10% to 9% which led to increase of domestic credit to economy by 27.3% of which more than 79% was devoted to long term credit loans for investment. This was in line with the government program on main directions on increasing sustainability of banking sector for the period 2011-2015.

25. The credits to small scale enterprises increased by more than 30% reaching nearly 4 billion USD. As a result, nearly 27000 new SMEs were created, which is 3% above of the levels in 2014. Of these newly created SMEs, 36% are in industry, 30.4% are in retail and food sector, and 11.2% in construction. The share of private sector in GDP reached 56.7%, and in industry – 38.9%. As a result, nearly 1 million new workplaces were created in 2015.

26. These achievements are in line with the reforms in private sector. According to the Doing Business report there were a number of improvements in various dimensions. For example, the number of days to register a property has decreased to 55 in 2015 from 62 in 2014. Number of tax payments per year decreased from 45 to 33. Although this figure is above than what is observed in Kazakhstan (6) and Russia (7).

27. The government realized 158 large scale investment and construction projects to the amount of 7.4 bln. USD. The production of consumer goods increased by 9.7%, foodstuffs – by 17.8%. The textile industry was booming as producers introduced 164 new products. And in line with the localization program for the period 2015-2019, in 2015 import-substitution effect was more than 1.56 billion USD. Moreover, the government reduced its presence in the economy by selling 608 state owned enterprises to the private sector of which 506 objects at a zero cost.

28. A number of international financial institutions operate in Uzbekistan by offering loans and grants to government and private enterprises. Among them, ADB and World Bank are the key players that support development project in Uzbekistan. This support is devoted to infrastructure projects, construction of railroads and highways, further penetration of electricity, support to SME and public-sector reforms. These projects are aimed to increase the competitiveness of Uzbekistan and support balanced and sustainable growth rate in the long-term perspective. For example, in the framework of carrying out the ADB’s initiative on increasing renewable energy use in Asia, Uzbekistan has received a credit line to construct a solar power plant with capacity of 100MWt in Samarkand region. In a similar vein, Uzbekistan has attracted a credit line to the amount of 140 million USD to the development energy line project Talimarjan-Sogdiana. This project is aimed to construct to electricity line with the length of 218 kilometers.

29. As an example of support from IFI for the construction of railroads and highways can be a credit line from ADB in 2011 in the amount of 240 million USD for the construction of national highway to link Uzbekistan with other central Asia countries. This credit is given for 25 years and is devoted for reconstruction of Гузар - Бухара - Нукус – Бейнеу highway. This credit line is part of ongoing project to the amount of 600 million USD for the construction of reconstruction of highways. It is important to highlight that this support from ADB is part of a national program that was adopted by the government for the period 2009-2014 on the construction of modern highways to the amount of 2.6 billion USD. By the end of this program government forecast to construct and modernize 1500 km of highways.

30. These and other projects are aimed to support inclusive and sustainable development of Uzbekistan, to increase the competitiveness and to overcome the dependence of Uzbekistan on external factors. Taking into account that these are large scale program they should certainly increase the macroeconomic efficiency and contribution of private sector to GDP.

31. Moreover, IFI enabled Uzbekistan to smoothly overcome the effect of external shocks by offering credits and grants to good jobs creation and improving efficiency. For
example, in 2016 Uzbekistan has received a credit to the amount of 100 million USD to foster private sector. This credit is devoted foster female entrepreneurship in the regions.

32. Therefore, there are a number of policy suggestions for ADB and other IFIs for designing and implementing their operations in Uzbekistan*) in order to weaken the linkages that were discussed above. First, although the volume of exports has been growing over the past decade, the complexity of export baskets has not been increasing in line with the growth trends. Moreover, observed slowdown of exports growth in 2015 may further signal that there is need to diversify the structure of Uzbekistan exports. For example, Uzbekistan is ranked 86th in the economic complexity index, standing below such resource rich countries as Chile or United Arab Emirates. Therefore, the loans or financial support provided by IFI must be aimed to increase the industrialization level of private sector enterprises. In addition, there should be a number of institutional reforms that would reduce the difficulties in exporting goods and services from Uzbekistan. For example, it is important to foster regional cooperation and integration by simplifying and harmonizing rules and regulations in transportation of the goods through the international borders. For example, according to World Bank 14 documents required per shipment to export goods from Uzbekistan, compared to 4 in Brazil and China. It is also to foster the services aimed at improving insurance of export goods and export contracts and offering bank guarantees through the system of state insurance in order to increase involvement of private sector in exports. It is also important to establish mutual agreements on the reduction of transit costs for the transportation of export goods. In order to increase the involvement of agro-private sector enterprises in the exports there is a need to establish consulting services in regions of Uzbekistan that would provide some market insight and trends for the producers. In this vein, large-scale infrastructure project such as construction of railways and modernization of airports would also positively contribute to the exports of goods and services.

33. Turning to the role of IFI in reduces the vulnerability of the economy of Uzbekistan to the external shocks via remittances channels we suggest that there is need to reform education sector of Uzbekistan in order to meet the needs of labor market. For example, according to World Bank there is potential to increase the employment productivity of Uzbekistan by improving the skills and competences of the university graduates (Ajwad et al., 2014; World Bank, 2014). It is important to foster cooperation between education (science) institutions and private sector. For example, the share of innovative products in the SME output does not exceed 5% while the share of R&D investment within the SME’s is below 10%. This implies that there is need to provide financial schemes that would allow SME’s to devote greater resources for R&D and offer new innovative products and services to the markets. There are a number of arguments why IFI should support R&D activities in the private sector. First, this would transform the burden of financing from the government to the private sector. Second, SME’s are more flexible compared to large state funding research institutions and therefore SME’s are more efficient in adopting and absorbing innovations. For example, largest share of all innovations in the US economy were created in the SME enterprises. In many developing countries such as China and India, SME is the birthplace of creative economy and innovations.

*) State Statistics Committee
Introduction

34. Recently Uzbekistan government has set an ambitious goal to enter the league of higher upper middle-income countries through the implementation of sustainable development policies. As shown by recent studies, it is equivalent to 8 percent annual growth in gross domestic product (GDP) over the next 15 years (Cornia, 2014).

35. Obviously, the achievement of this goal depends not only on the government’s efforts in dealing with internal socio-economic environment but also equipping the national economy with necessary instruments to withstand and cope with a number of external shocks.

36. Past Uzbekistan experience shows that much of the success of national economy within the first and second decades of the transition was predominantly determined by favorable prices for Uzbekistan’s key export items (cotton, gold, gas), inflow of remittances, government-led investment programs, and, gradual approach to development (Pomfret, 2012).

37. On the other hand, recent shocks on the commodity markets and worsening macroeconomic environment in EU and the US have posed a question whether resource rich Post-Soviet countries such as Azerbaijan, Russia, Turkmenistan and Uzbekistan can maintain stable growth rate in the mid-term. Indeed, the prices for oil have decreased by more than 50% in June 2014 creating much uncertainty and challenges for the ruling bodies in these countries. The evidence shows that the magnitude of this shock was very different across both developing and developed resource rich countries. For example, the GDP growth in Botswana decreased from 9.9% in 2013 (preshock period) to negative minus 0.3% in 2015, while some countries such as Saudi Arabia, managed to maintain the GDP growth rate in line with past trends. Turning to the GDP growth of Uzbekistan, it may seem that external shock did not exert any sizeable impact on the overall GDP growth trends as the average growth remained stable at nearly 8% from 2013 to 2015 (Figure 1). However, in this study we show that the picture is more complex as the external shock had effect on various socio-economic variables.

38. Therefore, the aim of this report is to explore the effect of 2014 global oil price drop on Uzbekistan economy. Following the traditional approach and empirical literature, the study builds its line of argument on a three potential (indirect) transmission channels of external (oil) shock on Uzbekistan economy: trade, remittances and financial channels.

39. We argue that the external shock had insignificant effect via financial and public (fiscal) sector. We explain the insignificant effect via financial system by a set of arguments such as low integration of the financial sector of Uzbekistan into global financial system, cautious banking sector policies and increasing access to credit by population.

40. Investigating the origins of the external shock is instrumental to effective policymaking and selecting right macroeconomic tools; if the shock has a cyclical nature than monetary and fiscal policies may seem to be important, however, if the shock has structural origin than it is important to carry out structural reforms. The published evidence suggest that the recent shock was more complex mix of demand and supply. The weak demand for natural resources was caused by the ongoing shift of the Chinese economy and slump in economic activity in developed countries. While the supply side was driven by growing output of the US shale oil and OPEC’s decision to oversupply the market. Therefore, we may anticipate that the effect of decreasing commodity prices may have important implication for both developed and developing countries.

41. In this study, we argue that reforms aimed at structural transformation which will lead to inflow of FDI, technological advance, improvements in labor market and trade
liberalization and diversification are the main policies to reduce the effect of shock and maintain rapid growth rates in the mid-term.

42. In the framework of ongoing structural transformation, we believe that international financial institutions (IFIs) may play important role by supporting large-scale modernization and infrastructure projects and financing private sector. On the other hand, we also believe it is important to take into account high rates of dollarization of economy as it is observed in other post-soviet states.

**Figure 1. GDP growth rates selected resource rich countries**

![GDP growth rates](chart.png)

Source: World Bank

43. Interestingly, that despite its more or less self-sufficiency in oil and gas, our evidence shows that Uzbekistan economy still remains very much vulnerable to external carbohydrate shocks and deteriorating global economic environment via remittances and trade channels. This has been apparent from recent global oil crisis that affected Uzbekistan economy indirectly through its impact on Russia and Kazakhstan – Uzbekistan’s strategic and key trading partners.

44. In this study, we explore the causes of the shock, transmission channels to the economy of Uzbekistan, macroeconomic policy response and the importance of IFI in allowing developing countries to overcome the shock and maintain stable growth.

1. **Development policies in Uzbekistan at different stages of reform**

45. In September 1991, Uzbekistan declared its independence and started the transition to market economy. Like in any Soviet Union country, the beginning of the transition similarly to other former Soviet states was characterized by declines in output and employment, disruption of trade links and drastic fall in per capita incomes.

46. In general, economic development of Uzbekistan over the past 25 years considering its location, market size and historical legacies was about managing external shocks. For example, with the collapse of Soviet Union the government faced the task to establish international market relations not only with the neighboring states but also with such regional players as China, Turkey and Iran. In this vein, with respect to managing external shocks and challenges that the economy of Uzbekistan was facing we can specify several stages of economic development.
47. First stage (1992-1996) was marked by creating a free market economic system and establishing economic and political ties with other nations. As a result, the government shaped foremost important trade institutions such as Customs committee of the Republic of Uzbekistan and National Bank for external trade. Moreover, the government has adopted a number of fundamental laws such as Law on external trade activity, Law on foreign direct investments and guarantees for foreign investors.

48. First years of independence were associated with low import customs duties at the levels of 5 – 10 %. This was explained by the need to fill the local markets with consumer goods and necessity to fight rampant levels of inflation. In addition, adoption of national currency – soum – also highlighted the need for liberalization of trade policies. Considering that local markets experienced deficit of consumer goods, the export duties were set at a quite high levels (up to 40%). At early 1990’s main share of export operations was carried based on licenses and quotas, especially exports of state owned enterprises. In mid-1990’s the export duties were further increased to the levels of 10 – 50%, and for some types of export goods the custom duties reached 100%. In general, mostly primary (commodity) goods have experienced increases in export duties.

49. First stage of market reforms was characterized by negative GDP growth rates (-3.6%), staggering low share of FDI (net) relative to GDP (0.3%) and rampant levels of inflation (nearly 700%).

50. The second stage of economic reforms covered years 1997-2002 when the government actively used export/import duties and excise taxes on a broad range of goods and services. In 1997 the government has decreased twofold the profit taxes for enterprises that export more than 30% of their goods and services. At the same time, the export barriers started to decrease. The macroeconomic environment started to slowly stabilize. For example, GDP growth rates averaged 4.3%, and inflation rates decreased less than 50% for the period.

51. In addition, the import duties have increased and this was dictated by the need to protect local producers from international competition, the need for structural transformations and the need to increase budget revenues. In contrast, export duties have decreased and were eliminated by the end of the period. Moreover, the export quotas were kept in place only for raw cotton, non-ferrous metals, energy and a number of other commodity exports. In order to stimulate exports the government has differentiated profit taxes and offered a number of fiscal exemptions. For example, the export duties for the exports of locally produced goods in foreign denominated currency contracts were eliminated. The government enabled exporters to open foreign trade houses and representative offices to conduct market research and promote national goods and services.

52. Third stage of reforms (2002-2009) is characterized by rising protectionism, especially with respect to consumer goods, in line with the adopted import substitution policies. This was done in order to reduce the demand for foreign currency and decrease the levels of external debt. Unification of exchange rates and introduction of convertibility of national currency on current account operations in 2003 has significantly increased the incentives for national produces to export their goods and services. As a result, the existing macroeconomic conditions has further improved: the GDP growth averaged at 7%, inflation rate dropped nearly twice and exports as a share of GDP surpassed imports. Moreover, the government debt relative to GDP has significantly decreased by 2008 to the levels of 12.7%².

53. It is important to note that in the years 2007-2008 the government of Uzbekistan was concerned with the potential adverse effects of global financial crisis. With the onset of the subprime mortgage crisis in the United States and the followed collapse of Lehman Brothers, developed countries and the global financial system has faced a significant

² http://www.tradingeconomics.com/uzbekistan/government-debt-to-gdp
slowdown. The unemployment rate in the US rose to 10.1% and GDP per capita growth in the fourth quarter slowed down to 6% at an annualized rate. The government of Uzbekistan has adopted a number of policy measures to overcome the spillover effects of global financial crisis on the economy of Uzbekistan.

54. While the financial sector of Uzbekistan was weakly dependent and integrated to the global financial system, the adverse effects of global financial crisis could come through external trade, remittances and investment channels. The weakened demand for exports and decreasing remittances could also decrease the consumption and earning which underlined the importance to tap the internal drivers of economic growth. The government has developed a crisis-preventing program that covered a number of important aspects. In this program, the government has declared the need:

- to increase the creation of new job places in the area of production of localized goods
- to increase the creation of new job places in the area of construction and public works
- to increase the tax preferential base for private sector enterprises in the construction sector
- to increase the earnings in the rural area by improving the realization conditions of the agricultural products
- to increase the share of SME in GDP by improving the business climate and increasing access to credit. For instance, the government has increased the capitalization of such banks as Uzpromstroybank, Asaka-Bank, Pahta Bank and others. In 2009, the aggregate liquidity of the banking sector was 1.5 billion USD.

55. This program also highlighted the importance of technological modernization, adoption of international quality standards and re-equipment of industrial sector. In order to further foster exports the government allocated preferential loans for 12 months with the rate not exceeding the 70% of the CBU refinance rate. The enterprises with foreign investments were exempt from all taxes (excluding VAT) until 2012. Other measures include implementation of the measures on the increase of the energy efficiency, introduction of efficient systems that reduce consumption of energy and reduction of unified tax payments for micro-enterprises by nearly 50%.

56. As a result, nearly 660,000 new workplaces were added to the economy of which more than 370,000 are in the area of SME and 220,000 in the area of services. The share of SME in GDP has increased from 45.5% in 2007 to 48.2% in 2008.

Table 1. Key economic indicators of Uzbekistan

<table>
<thead>
<tr>
<th>Indicator</th>
<th>I stage</th>
<th>II stage</th>
<th>III stage</th>
<th>Crisis</th>
<th>pre-shock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation, GDP deflator (annual %)</td>
<td>696.43</td>
<td>47.86</td>
<td>25.88</td>
<td>21.81</td>
<td>15.55</td>
</tr>
<tr>
<td>GDP (current US$), billion</td>
<td>13.25</td>
<td>13.61</td>
<td>16.48</td>
<td>28.52</td>
<td>48.69</td>
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<tr>
<td>GDP growth (annual %)</td>
<td>-3.58</td>
<td>4.30</td>
<td>7.02</td>
<td>9.01</td>
<td>8.25</td>
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<tr>
<td>GDP per capita (current US$)</td>
<td>592.66</td>
<td>557.83</td>
<td>622.62</td>
<td>1041.99</td>
<td>1647.52</td>
</tr>
<tr>
<td>Unemployment, total (% of total labor force)</td>
<td>8.98</td>
<td>9.29</td>
<td>9.33</td>
<td>9.32</td>
<td>9.16</td>
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<tr>
<td>(modeled ILO estimate)</td>
<td></td>
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<tr>
<td>Foreign direct investment, net inflows (% of GDP)</td>
<td>0.29</td>
<td>0.79</td>
<td>1.55</td>
<td>2.69</td>
<td>2.47</td>
</tr>
</tbody>
</table>

57. The macroeconomic snapshot of Uzbekistan for the period 2007-2009 was far more attractive than majority of other developing countries. The average GDP growth in 2007-2009 was 9%, the share of net FDI in GDP was nearly 2.7% and exports comprised 38.4% of GDP.

58. The pre-shock period of 2010-2014 was featured by GDP growth rate exceeding 8%, increasing share of FDI in GDP (2.47%), changes in the sectoral composition of GDP.

59. Table 1 presents key economic indicators of Uzbekistan since 1991. First, it may be seen that along its developing path and coping with the effects of external challenges the economic structure of Uzbekistan has considerably changed. Initially, Uzbekistan inherited one-sided structure of the economy, with a large agricultural sector focused on sustaining the demands of the republics of the Soviet Union. During the independence, the share of agriculture in GDP was reduced, while the shares of industry (especially extractive industries) and service sectors increased (Figure 3). Currently, the largest share of output production is provided by the services sector, followed by industry and agriculture. Increases in the share of services and decreases in the share of agriculture in aggregate production are the direct outcome of structural reforms made by the government over the past decade. In accordance with most recent data, the share of services (47%) dominate in the GDP with the shares of industry and agriculture achieving 34.6% and 18%, respectively by 2015 (Figure 2).

### Table 1: Economic Indicators of Uzbekistan since 1991

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>General government final consumption expenditure (% of GDP)</td>
<td>22.28</td>
<td>19.45</td>
<td>17.07</td>
<td>15.24</td>
<td>15.61</td>
</tr>
<tr>
<td>Trade (% of GDP)</td>
<td>61.43</td>
<td>50.15</td>
<td>70.10</td>
<td>74.95</td>
<td>60.24</td>
</tr>
<tr>
<td>Imports of goods and services (% of GDP)</td>
<td>33.05</td>
<td>24.95</td>
<td>32.47</td>
<td>36.60</td>
<td>30.68</td>
</tr>
<tr>
<td>Exports of goods and services (% of GDP)</td>
<td>28.38</td>
<td>25.19</td>
<td>37.64</td>
<td>38.35</td>
<td>29.56</td>
</tr>
<tr>
<td>Agriculture, value added (% of GDP)</td>
<td>32.23</td>
<td>33.27</td>
<td>28.82</td>
<td>22.78</td>
<td>19.89</td>
</tr>
<tr>
<td>Industry, value added (% of GDP)</td>
<td>31.00</td>
<td>24.07</td>
<td>26.67</td>
<td>31.91</td>
<td>34.00</td>
</tr>
<tr>
<td>Services, etc., value added (% of GDP)</td>
<td>36.78</td>
<td>42.66</td>
<td>44.51</td>
<td>45.31</td>
<td>46.11</td>
</tr>
</tbody>
</table>

Source: World Bank

60. Despite the ongoing volatility of global markets, the economy of Uzbekistan managed to maintain rapid GDP growth rates over the past years for a number of reasons.
First, the government initiated a number of policy reforms aimed to modernize the economy. For example, the government adopted a Presidents Decree on the realization of important projects on modernization and technical re-equipment of production for 2009 – 2014. There were also a number of follow up decrees that were further devoted to foster the development and productivity of manufacturing sector. For example, the Decree of Cabinet of Ministers of the Republic of Uzbekistan as of 13.07.2009 N197 on the measures on accelerated realization of key investment projects and purchase of technological equipment for 2009–20105. As a result, the growth rates of manufacturing output has increased from nearly 6% in pre-global crisis period to above 8% over the past years. Moreover, the growth rate of manufacturing sector in the economy over the period 2005-2012 ranged from 7.3% to 12.7%. It is important to note that in 2015 as a result of President’s Decree on localization for 2015–2019 the import-substitution effect exceeded 1.2 billion USD6.

In addition, economic growth of Uzbekistan was also driven by ongoing structural transformations. For example, the share of agriculture in GDP has decreased to 16.7%, while the share of manufacturing reached 33.5% (according to World Bank). Moreover, the manufacturing output over the past decade increased by more than 2.4 times. The share of SME in GDP reached 56.5% in 2015.

Apart from modernization processes and transformation, another driver of economic growth over the recent years has been export promotion and trade liberalization. Over the past decade the exports increased by more than 2-fold and there has been a surplus in the current account balance of payments. Analysis of the exports structure over the past decade shows that the share of cotton in exports decreased by more than 2-fold, at the same time the share of foodstuffs and energy has increased: while the share of chemistry and plastics (4-5%), metals (7-9%), cars and equipment (4-10%) remained stable. However, it is important to note that these shares were changing year on year reflecting volatile external environment and changing prices. This was also reflected by institutional reforms in the trade sector. For example, a number of policy measures were adopted to foster exports of Uzbekistan over the past years such as the Decree of the President of the Republic of Uzbekistan on additional measures to strengthening the stimulation of the export oriented enterprises7. Moreover, the government has established free industrial and economic zones (FIEZ) Navoi and specialized economic zones Angren and Djizzak. The goal of FIEZ Navoi is to attract modern, foreign equipment and technologies to produce modern high-tech and competitive goods in electronics, pharmaceuticals, food industry and other manufacturing. The goal of SIZ Angren is attract direct FDI to foster creation of innovative enterprises, further support the localization program and to take advantage of Angren logistic hab to foster trade flows. Based on its goals, Angren SIZ the enterprises in chemicals and petro-industry, construction and electronics are established there8 (UNDP, 2014). During 2012-2013, 16 projects amounted to 224.7 million USD were carried out in Angren SIZ which created 840 new workplaces. One of such projects is Angren Shakar, a 100% foreign owned enterprise, which produces 1000 tons per day and employs 550 people. This enterprise allowed Uzbekistan to reduce its dependence on import of sugar.

Turning to the statistical analysis of bilateral trade and economic growth rates of Uzbekistan, our analysis based on the Solow model of economic growth decomposition

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1 Resolution of the President of the Republic of Uzbekistan from 12.03.2009, N PP-1072 “On the Program of measures to implement the most important projects on modernization, technical and technological re-equipment of production for 2009-2014
2 Resolution of the Cabinet of Ministers dated 13.07.2009 N 197 “On measures to accelerate the implementation of major investment projects and the purchase of technological equipment for 2009-2010.”
4 Resolution of the President of Uzbekistan № PP-1731 of 26.03.12, “On additional measures to strengthen incentives for exporting companies and the expansion of export deliveries of competitive production »
shows that trade openness is positively correlated with economic growth. The quantitative meaning of this association is that when trade openness, measured by sum of exports and imports as a share of GDP, increased by 1 percentage point GDP growth rates increased by 0.2 percentage points. We also may observe (Figure 3) that although in nominal terms exports have been growing since 2005, there has been a moderate decrease in 2014-2015. These negative trends in the exports of Uzbekistan in 2014-2015 may be driven by ongoing economic uncertainty in CIS countries and the effect of compound external crises. In a similar vein, the growth rates of exports and imports over the period 2011-2015 were also very volatile, thus, reflecting unstable external environment.

Figure 3. Trade dynamics of Uzbekistan (2005-2015)

64. Among the reasons for the volatility of bilateral trade levels is the shifts in geographical structure of the exports of Uzbekistan. For example, the share of CIS countries has increased to 44%, while share of developed countries in post global crisis period (2010) has decreased to 5.3%. The share of less developed countries over the past years remained stable and accounted for nearly 45% in 2014. Indeed, the role of China as a key trading partner has increased over the past decade. For example, the share of exports to China increased from 4.2% to 16.8%.

65. Similarly, there has been a shift in the origins of imports to Uzbekistan. For example, the share of China increased from 6.3% in 2005 to 17.1% in 2014. While the share of Turkey, Russia, Germany and Ukraine have decreased (Figure 5).

66. Apart from modernization and trade liberalization, remittances have been an important source of revenues and economic growth for Uzbekistan. According to Bendini (2013) nearly 7% of population work abroad and remittances comprise 12% of GDP. International remittance transfers had important implication for reducing poverty and accumulation of human capital. Indeed, the proportion of the population living below the national poverty line declined from 27.5% in 2001 to 17.7% in 2012.

\[ D \ln Y = a + b \ln K + c \ln L + d \ln \text{TRADE} + e \]

Forecasts


12 World Bank, Uzbekistan partnership: country progress snapshot. (March 2013)
Figure 4. The share of main trading partners in exports of Uzbekistan, 2005 – 2015

Source: EU Trade, State Statistics Committee

Figure 5. The share of main trading partners in imports of Uzbekistan, 2005-2015

Source: EU Trade, State Statistics Committee
67. The diagnostics of growth drivers on based on demand-supply analysis shows that in recent years the largest share of GDP growth has been achieved by supply aspects (such as investment and industrial output) in the growth of GDP (see Table 2).

Table 2. The contribution of demand and supply factors to GDP growth

<table>
<thead>
<tr>
<th></th>
<th>2010-2015</th>
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<tbody>
<tr>
<td>Demand factors</td>
<td>24%</td>
</tr>
<tr>
<td>Supply factors</td>
<td>51%</td>
</tr>
<tr>
<td>Inertia factors</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: «Diagnosis of economic growth by internal and external factors of supply and demand», IFMR, Tashkent 2015

2. The shock

68. Since 2014 oil prices have experienced the largest drop since the 2007-2009 recession (Figure 6). Throughout the mid-2000s oil prices fluctuated around the psychological benchmark of $100, whilst today it seems that $30-40 per barrel is the new reality. Indeed, according to market forecasts1 for 2016, companies and investors are preparing for another year of strain.

Figure 6. Weekly crude oil prices: WTI, US$ per barrel

Source: U.S. Energy Information Administration

69. There are a number of main reasons why the market has observed a substantial decrease in the oil prices. First, this price drop was very different from the demand-induced oil crisis of the recession. Oil prices decreased by nearly 50% between summer 2014 and early start of 2015. The decrease was followed by a number of smaller shocks. The initial gradual slide was from $110 a barrel of Brent oil in June 2014 to $80 a barrel before the OPEC meeting in late November. Subsequently, the Brent oil price fell sharply to below $50 a barrel by early January 2015, before recovering partly to about $65 a barrel in May 2015.

70. One of the unexpected triggers was caused by OPEC, which increased oil production at the beginning of the drop in oil prices, rather than decreasing it. Meanwhile,
producers in the U.S. and Russia proved much more resilient than expected. For example, despite the reduction in U.S. oil production in spring 2015, its annual production level showed multi-decade highs. According to official data, on average since October 2015 the U.S. produced 9.3 million barrels each day. Canada, Russia, China and Norway all are expected to post annual production gains this year, according to the U.S. government’s Energy Information Administration.

71. The second reason is the slowdown of Chinese economic growth, which continued to slow in the third quarter of 2015 and is nearing its slowest pace since the global financial crisis. The recorded GDP growth rate in the third quarter of 2015 reached 6.9%, the first time since the recession that economic growth in China fell below 7%. This slowdown of Chinese economic growth triggers additional concerns about the world economic outlook.

72. Finally, the struggle for the market share between Iran and Saudi Arabia may add further impetus to the plummeting of oil prices. Iran is back on the international market following the recent lifting of western sanctions. Furthermore, recent evidence shows that Saudi Arabia has an excess production capacity of 2.5 million barrels per day, which is double the supply it released onto the oil market last year. This may signal Saudi Arabia’s willingness to keep up with low prices and foreign reserve cuts to protect its share in the oil market.

73. It is obvious that the external shocks were not associated just with the reduced oil prices. Both economic (continuing global financial crisis) as well as political (situation around Ukraine) turbulences, declining oil prices, devaluation of Yuan, etc. make the crisis compounded and the prospects for the future highly unpredictable and highly volatile.

74. Taking into account that neither the decline of the oil prices (and other externalities discussed above) nor the earlier global financial crisis had direct sizable impact on Uzbekistan, and economic growth was driven by such factors as trade, remittances and structural reforms. We review the effect of external shock on the economy of Uzbekistan via a number of potential channels. It is important to note that considering that financial sector is weakly integrated to global financial system we review the effect of shock via this channel but conjecture this effect to be insignificant.

FOCUS BOX: EMPIRICAL EVIDENCE ON THE IMPACT OF EXTERNAL SHOCKS ON NATIONAL ECONOMIES
Recent empirical studies reveal that external shocks such as decreases in commodity prices may have both positive and negative impact on developing countries. Specifically, certain studies argue that decreases in oil and gas prices may stimulate government spending, thus, fostering economic growth. However, this effect largely depends on the causes of price decline, the mediating channels and the nature of the economic growth per-se. For example, while resource rich countries may suffer from the price decrease, countries with more diversified export basket are more likely to benefit from the external shocks due to lower production costs. Such prices give impetus for the industries where oil is an input good (Husain et al., 2015).

On the other hand, empirical evidence yields mixed results. For example, Ito (2010) explores the effect of oil price changes on the macroeconomic conditions of Russia. The study uses vector autoregression and cointegration techniques and finds that 1% decrease in oil prices is associated with 0.46% reduction in economic growth. In a similar vein, Kuboniwa (2014) finds that a 10% decrease in oil prices leads to 2.3% reduction in Russia’s manufacturing growth. This implies that large countries such as Russia that are very vulnerable to external shocks.

There is also evidence from small open economies. For example, rising oil prices and revenues from gas exports were main drivers of economic growth of Azerbaijan. The public spending was increased by 29% per annum during the period of high oil prices (2004-2008). During the period of oil price boom the share of resource sector in GDP was more than 55%,
while it has employed only 12% of the labor force (Blauuw, 2011). The decrease of oil prices in the aftermath of global financial crisis has led to volatility of the GDP growth rates. Moreover, Azerbaijan faced further difficulties in the aftermath of the decline in oil prices since 2014. For example, Azerbaijani manat (AZN) devalued by 34% against the USD in February 2015. The country shifted from fixed to a managed floating exchange to reduce the pressure on national economy. Moreover, Central Bank initiated a tightening monetary policy to control the potential rise in inflation. The refinancing rate increased by 4 percentage points reaching 7%. However, the supply of credit to economic in the aftermath of global oil price shocks decreased from 22% to 16%. On the other hand, due to the state interventions, the supply of credit to the economy increased by public banks.

2.1 Trade channel

75. Uzbekistan is a small open economy with moderate degree of trade openness, but high external trade relations with Russia, Kazakhstan and China being its key trading partners. Its average level of bilateral trade during 2000-2014 was 53% of GDP (Figure 7).

76. Taking into account its geographical position Uzbekistan’s trade was always more intense with neighboring nations with larger market sizes. This is in line with the predictions of the conventional theories of international trade that conjecture that trade is positively related to market size but inversely related to the distance between the trading partners.

77. For example, in 2014 Russia, Kazakhstan and China accounted more than 55% of its exports. On the other hand, the government over the past decade was successful in diversifying its export destinations. For instance, the share of goods exported to Russia decreased from 34% in 2010 to 19.9 in 2014. While share of products exported to China increased from 6.9% to 16.8% over the same period\textsuperscript{13}.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figures/trade openness as a % of GDP.png}
\caption{Trade openness as a % of GDP}
\end{figure}

Source: World Bank

\textsuperscript{13} State statistics committee
78. Turning to the evolution of the exports structure of the Republic of Uzbekistan, we may find that the share of raw cotton has substantially decreased, whereas the share of services and energy has been increasing (Figure 8). Indeed, resource sector still plays an important role in economy. For example, according to the most recent data, natural resource rents comprise nearly 14% of GDP and mineral products exports comprise more than 16% of export basket.

79. The external shock had mixed effect on the economy of Uzbekistan via trade channel. First, we have estimated the statistical association between the exports of Uzbekistan on one side, and GDP growth of Russia, global energy commodity price index (estimated by World Bank), and lagged GDP growth of Uzbekistan. We used yearly time series data for 1995-2015, adjusted for potential stationarity. Based on the F-test, the model is overall significant (F-stat = 11.84, above 4; p-value = 0.00). The adjusted R-squared is above 0.8 which indicates that external environment, export prices and lagged economic growth of Uzbekistan explain more than 80% of export growth rates.

80. The statistical modeling results show that the coefficient for the GDP growth of Russia is positive and statistically significant at the 1% level. The quantitative meaning of the estimate in the framework of the effect of external shock via the slump in the economy of Russia suggests that the decline of GDP growth in Russia in 2015 (minus 3.7%) reduced overall exports growth of Uzbekistan by nearly 5 percentage points.

\[\text{\cite{AzamS,MakhmudovB,2015,61}}\]
81. Turning to the dyadic trade between Russia and other countries, including Uzbekistan, we find that the effect was more pronounced. Indeed, exports of Uzbekistan to Russia in 2015 fell by 28.4% compared to 2014. There are a number of reasons for the decline in bilateral trade levels. First, the decrease in oil prices was followed by devaluation of Russian currency. In addition, due to the sanctions imposed on Russian economy there has been a large drop in economic growth rates. Consequently, the purchasing power of the population has dropped and the costs of imported goods have increased. Comparing pre-shock and after-shock periods (January-May 2015 compared to January-May 2014) the exports have decreased by 21.8% and imports have decreased by 44.4%. There was significant decrease in exports of Uzbekistan to Russia across a number of positions. For example, the exports of cars to Russia dropped by 46% in 2015. In 2015, Uzbekistan exported 20451 cars compared to 37695 in 2014. Moreover, in 2015 Uzbekistan has lost some of its share on Russian automobile market. For example, the share of GM Uzbekistan decreased by 0.2 percentage points from 1.5 to 1.3% in 2014.

82. However, it is important to note that the data also shows that Republic of Uzbekistan successfully followed the policy of trade diversification as the share of Russia and CIS countries that were affected by shock has decreased by 10% in total trade. On the other hand, the share of other countries has increased proportionately. For example, the bilateral trade between Uzbekistan and China has increased by 11.7% during first two quarters of 2015 while the volume of trade between the countries was 4.7 bln. USD in 2014.

15 http://www.ved.gov.ru/exportcountries/uz/uz_ru_relations/uz_ru_trade/
Table 3. Bilateral trade between Russia and selected post-Soviet

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</thead>
<tbody>
<tr>
<td>Azerbaijan</td>
<td>3373.1</td>
<td>2287.1</td>
<td>-32.2</td>
<td>635.9</td>
<td>517.2</td>
<td>-18.7</td>
</tr>
<tr>
<td>Armenia</td>
<td>1094</td>
<td>1048.2</td>
<td>-4.2</td>
<td>314.2</td>
<td>196.6</td>
<td>-37.4</td>
</tr>
<tr>
<td>Belarus</td>
<td>20605</td>
<td>15537.9</td>
<td>-24.6</td>
<td>15346.3</td>
<td>8935.2</td>
<td>-41.8</td>
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<td>Kazakhstan</td>
<td>14112.8</td>
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<td>-23.2</td>
<td>7396.4</td>
<td>4879.5</td>
<td>-34.0</td>
</tr>
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<td>Kyrgyzstan</td>
<td>1743.2</td>
<td>1299.1</td>
<td>-25.5</td>
<td>73.8</td>
<td>71.2</td>
<td>-3.5</td>
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<td>Moldova</td>
<td>1480.3</td>
<td>1036.4</td>
<td>-30.0</td>
<td>316.1</td>
<td>185.8</td>
<td>-41.2</td>
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<td>Tajikistan</td>
<td>891</td>
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<td>37.3</td>
<td>52.2</td>
<td>39.9</td>
</tr>
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<td>90.9</td>
<td>73.5</td>
<td>-19.1</td>
</tr>
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<td>2235.4</td>
<td>-28.4</td>
<td>875.3</td>
<td>601.8</td>
<td>-31.2</td>
</tr>
<tr>
<td>Ukraine</td>
<td>17061.8</td>
<td>9294.9</td>
<td>-45.5</td>
<td>10749.3</td>
<td>5671.2</td>
<td>-47.2</td>
</tr>
</tbody>
</table>

Note: mln. USD

Source: GKS.RU

83. Overall, we find that there was the effect of external shock on the economy of Uzbekistan via trade channel, although we believe that this effect was much smaller than in such countries as Azerbaijan, Moldova and Ukraine where exports to Russia has decreased by 32.2%, 30% and 45.5% respectively (Table 3).

84. The imports of Russia from Uzbekistan in 2015 decreased by 31% compared to 2014. (Figure 9). However, again, this reduction was smaller compared to the effect of external shock on such countries as Ukraine, Moldova, Kazakhstan, Armenia and Belarus.

Figure 9. Bilateral trade between Russia and Uzbekistan

85. Based on existing macroeconomic data on GDP growth of Uzbekistan and economic growth of Russia, we have forecasted potential evolution of exports of Uzbekistan for 2016-

2018. Scenario 1 uses inertia trends and World Bank forecasts: GDP growth of Uzbekistan is projected at 7-7.5% and GDP growth of Russia at 0-2%. According to this scenario, the growth rate of exports will be in a range of 5–7%.

86. Scenario 2 (optimistic) assumes improving both internal and external macroeconomic environment. For example, GDP growth of Uzbekistan is set in a range of 7-9% and GDP growth or Russia is set in a range 2-3%. According to this scenario, the average growth of exports of Uzbekistan during 2016-2018 will be 7.5%.

87. Finally, scenario 3 (pessimistic) suggests further stagnation in Russia. The growth rate of Russian GDP is set at -1 – 0%. According to this scenario the exports of Uzbekistan will increase at a rate of 1 -2% and reach 13.6 billion USD in 2018 (Figure 10).

![Figure 10. Exports of Uzbekistan](image)

**Figure 10. Exports of Uzbekistan**

Source: World Bank, author’s estimates

### 2.2 Remittances channel

88. According to international organizations remittances were among drivers of economic growth in Central Asia. For example, UNDP (2015) reports that during the pre-crisis period 2009-2013, remittances from Russia to Uzbekistan were more than 6.6 billion USD and accounted for nearly 12% of GDP in 2013. However, with the decrease in oil prices and economic recession in Russia the volume of remittances decreased. While research suggests that in 2010 emigration rate was nearly 7% of population, it was still considerably below than in Europe and Central Asia as a whole (10.7 percent). However, remittances do not play such important role on the economy of Uzbekistan compared to other Central Asia countries. For example, the Tajikistan and Kyrgyzstan are among the world’s most remittance dependent countries as remittances account more than 25% of GDP (Figure 11).

89. Interestingly, the average image of Uzbek labor migrant has evolved over time. Immediately after the collapse of USSR the major source of migration were the ethnic Russians and Ukrainians. These migrants were seeking permanent residence in Russia. In the early 2000s the major motive for migration was temporary employment. Nearly 1.5 million people was the net migration of Uzbekistan from 1991 to 2013.
90. During 2000’s the average number of labor migrants in Russia was nearly 500,000 while to other countries the number of labor migrants was rather small: 50,000-100,000. The 2013 World Bank/GIZ survey data (as cited in Ajwad et al., 2014) documents that more than 85 percent of Uzbek migrants are located in Russia and 12% work in Kazakhstan.

Figure 11. Remittances as a share of GDP, 2010-2015 average

91. Turning to the effect of external shock, the number of Uzbek migrants working in Russia decreased by 500,000 to 2.2 million by January 2015 compared to August 2014. Thus, the economic decrease in Russia as a result of oil price shock and sanctions imposed by the Western nations had reduced the amount of remittance inflow. For example, share of Russian remittances in GDP of Uzbekistan decreased from nearly 10% in 2014 to 5% in 2015. Although, this drop was considerably weaker compared to neighboring countries where the reduction in remittances inflows was more dramatic. There was 69.5% drop in the amount of transfers from Russia to Uzbekistan in H1 2016 in comparison to H1 2015 (Figure 12).

92. For example, the share of remittances in GDP fell from 40% to nearly 27% in Tajikistan. In a similar vein, Moldova witnessed down surge in the share of migra-dollars in GDP by nearly 8 percentage points in the aftermath of external shock (Figure 12).

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18 http://www.uz.undp.org/content/uzbekistan/en/home/ourperspective/ourperspectivearticles/2015/03/05/who-is-behind-remittances--a-profile-of-uzbek-migrants.html#
Although, it is important to note that the decrease in the volume of remittance from Russia is driven by a number of factors. First, the capacities of the Russian labour market to absorb new labor migrants has been exhausted. The latter is related both to the economic contraction in Russia as well as to the preferences provided to the increasing inflow of migrants from Eastern Ukraine. Thus the pace of migration to Russia has been declining. Still the total number of migrants (including those from Uzbekistan) was not reducing (except for seasonal fluctuations). Meanwhile the scale of remittances got indeed reduced. The sharp decrease of remittances as a share to GDP could be explained primarily by the devaluated Ruble in Russia and sustained high GDP growth in Uzbekistan.

2.3 Financial channel

The external shock of 2014 had very marginal effect on the economy of Uzbekistan through the banking sector. This is further supported by the recent trends in data. For example, the share of non-performing loans (NPLs) in the banking sector have remained stable, while some countries experienced increase in the volume of NPLs relative to total gross loans. For example, share of NPLs decreased from 3% in 2008 to less than 0.5% in 2015 (Figure 13). Moreover, the share of NPL has remained stable over the past year, due to the government’s policies aimed to strengthen financial sector (discussed below). On the other hand, in Armenia NPLs increased from 4.3% to 7.95%. Comparing to other Post-Soviet countries, there was considerable increase in NPLs in the aftermath of external shock: Belarus, Moldova, Kyrgyzstan, and Armenia, while only in Kazakhstan the share of NPLs decreased (Figure 14). Moreover, despite that theory may predict reduction in supply of credit, in the first half of 2015 supply of credit to private sector increased by more than 30% and 55 state owned assets were privatized on the amount of 9.7 billion sums (more than 3 million USD).
95. The strength of banking sector of Uzbekistan in the aftermath of external shock is supported by increase in total bank assets. (Figure 15). We may see below that bank assets were gradually increasing, by more than 24% in 2016 and reached 65 trillion soums. This was in line with the President’s decree “On further strengthening of financial sustainability of the commercial banks and development of their resource base” (as of 6th May 2015). This legal framework was aimed to continue implementation of international standards, improving the supervision of banking sector, inclusive access to credit by private sector and rapid implementation of modern ICT technologies in the banking sector.

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19 Decree of the President «On measures to further strengthening of financial sustainability of the commercial banks and the development of their resource base », dd May 6, 2015
In a similar vein, there is observed substantial increase in gross capital of the banking sector which has increased from 5.5 trillion soums in 2014 to 7.8 in 2016 (Figure 16). As of 2016, capital adequacy ratio of the banking sector of Uzbekistan is 23.3% which is more than 3-fold above require by the Basel regulations.

When considering the effect of financial channel through FDI inflows, we may see that the shock effect is absent. Overall, FDI inflow to Uzbekistan increased from 1% of GDP in 2014 to 1.6% of GDP in 2015 (Figure 17). Moreover, turning to linkages of banking sector to Russia the FDI inflow from Russia since 2010 has been steadily increasing and have
reached 6 bln. USD by 2015. Moreover, in the aftermath of falling oil priced FDI from Russia in 2015 increased by 40.2% exceeding 1.2 bln. USD. Of these investments 95% was invested in oil and gas sector and nearly 5% in the ICT sector\(^{20}\).

**Figure 17. FDI as % of GDP**

![FDI as % of GDP](source: World Bank)

98. It is also important to state that as the result of external shock the trend of Uzbekistan government debt as normalized by GDP has increased. For example, government Debt to GDP in Uzbekistan averaged 24.26 percent from 1998 until 2015, reaching an all-time high of 59.38 percent in 2001 and a record low of 8.58 percent in 2013. On the other hand, in 2015 the recorded figure for government debt is 11% (Figure 18).

**Figure 18. Uzbekistan government debt as a share of GDP, %**

![Uzbekistan government debt as a share of GDP, %](source: State statistics committee)

99. Based on our model estimates adjusted for experts’ opinion we have estimated two scenarios for the evolution of the debt to GDP ratio in midterm (Figure 19). According to our estimates, under the negative outlook (decrease in oil/gas prices and negative growth rate of Russian GDP at \(-1 \sim 0\) %); the debt as a share of GDP may increase to 12.2 in 2017.

100. Under the optimistic scenario (rise in price for natural resources and improvement in external environment) the debt to GDP ratio should decrease to 8.2% in 2017.

\(^{20}\)https://ria.ru/spravka/20160425/1417406613.html
3. **Policy response**

3.1 **Monetary Policy**

101. The monetary policy response in resource rich developing countries to the external shock from commodity prices depends on the level of openness to trade and integration to global financial system. In small open economies, the government tends to reduce policy rates to foster demand. However, this may lead to larger inflation expectations due to high pass through between exchange rate depreciation and inflation. Moreover, it is also important to mention that the effect of monetary policy response may be a function of level of dollarization, development of financial markets, external debt and quality of institutions.

102. In Uzbekistan, the monetary policy in the aftermath of external shock was aimed at maintaining balance between internal demand and inflationary pressures. The CBU refinance rate decreased from 12% in 2013 to 10% in 2014 and to 9% in 2015. At the same time, CBU maintained strict control over arrears in payments and cash turnover, and continued to stimulate non-cash payments to the public using plastic cards. The growth of money supply (M2) decreased from 32% in 2011 to 21.6% in 2015. At the same time, the overall credit portfolio in the banking sector has increased to 42.7 trillion soums. In addition, it is important to mention that despite of the external pressures the Uzbekistan's banking sector rating assigned by Moody's remained 'stable' in 2015-2016.

103. We find that due to low integration of national financial sector into global financial system, cautious banking sector policies in the aftermath of shock, ongoing government policies aimed to foster economic growth and raise the banking sector liquidity and solvency, stepwise market reforms in the financial sector, increasing the stock market size and fostering establishment of nonbank financial institutions and increasing inclusive access to credit by population (for example, microfinance) there was limited effect of external shock to Uzbek economic through financial sector.

104. Moreover, as suggested by ADB ‘Uzbekistan’s financial disclosure, supervisory, and regulatory systems are broadly in line with international standards. Other significant
achievements include a well-organized payment system, and efficient internal management information systems in leading banks’. Uzbekistan has significantly improved its positions in the credit requirements of the Doing Business report. In 2016, Uzbekistan advanced 113 positions, from 154th place to 42nd. Moreover, in the aftermath of external shock Uzbekistan has went up by 63 positions. Therefore, we discuss this section briefly.

3.2 Inflation expectations

Evidence shows that external shocks followed by exchange rate volatility may lead to inflationary expectations in developing countries. For example, after the shock of December, 2014 currencies of Armenia and Kazakhstan have undergone significant depreciation. On the other hand, the figure below suggests that external shock, depreciation of Russian ruble and other currencies had sizable but short run impact on exchange rate movements between Uzbek sum and US dollar (Figure 20). For instance, there was accelerated depreciation of UZS relative to USD from September 2015 to January 2016 that was deviating from existing trends.

Figure 20. USD/UZS exchange rate

![Graph of USD/UZS exchange rate]

Source: Central Bank of Uzbekistan

Figure 21. RUB/UZS exchange rate

![Graph of RUB/UZS exchange rate]

Source: Central Bank of Uzbekistan
Moreover, Figure 22 shows that there were no inflationary expectations in the aftermath of external shock, as inflation (measured by GDP deflator) followed decreasing trend which was picked up in 2007. For example, in 2015 inflation was only 8.7% compared to 23.5% in 2007.

**Figure 22. Inflation dynamics**

3.3 Fiscal policy

In the first half of 2015, the economic growth of Uzbekistan was in line with existing trends and reached 7.5%. Similarly, industrial output increased by 7.9%, retail by 11.2%, agriculture by 6.3% and services by 13.1%. Moreover, entrepreneurial activities were constantly increased during this period, as number of new private enterprises have increased by 8000 (+10.2%) compared to January-June 2014. Due to active implementation of government programs more than 141 000 new jobs were created, of which 62.6% in the rural area.

While government forecasted to have budget deficit equal to 1% of GDP, as a result of deteriorating external environment, the 2015 fiscal year was closed with 0.1% surplus (Figure 23).

**Figure 23. Dynamics of budget deficit/surplus as % of GDP**
The real wages increased by more than 10%, while wages in public sector, pensions and stipends increased by 23.2%. The effect of external shock on fiscal policies is presented in Table 3. Table 3 presents the state budget revenues and their change from 2014 to 2015. As we may see below indirect and direct taxes account for the largest share of state budget revenues, 52.6% and 24.1% accordingly in 2015. Turning to the percentage change in the sources of budget revenues, we may see that there has been increase in all of the revenue sources. For example, indirect taxes in 2015 increased by nearly 14%, which suggests that the external shock had no effect on fiscal sector.

Table 4. State budget revenues

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
<th>Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bln. Soums</td>
<td>%</td>
<td>bln. Soums</td>
</tr>
<tr>
<td>Revenues</td>
<td>31729.6</td>
<td>100</td>
<td>36493.3</td>
</tr>
<tr>
<td>1. Direct taxes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profit tax</td>
<td>7433.1</td>
<td>23.4</td>
<td>8798.4</td>
</tr>
<tr>
<td>Income tax</td>
<td>1120.2</td>
<td>3.5</td>
<td>1180.5</td>
</tr>
<tr>
<td>Fixed tax on specific</td>
<td>3261.7</td>
<td>10.3</td>
<td>3800.7</td>
</tr>
<tr>
<td>types of entrepreneurship</td>
<td>553.1</td>
<td>1.7</td>
<td>681.5</td>
</tr>
<tr>
<td>2. Indirect tax</td>
<td>16851.8</td>
<td>53.1</td>
<td>19193.8</td>
</tr>
<tr>
<td>VAT</td>
<td>9475.6</td>
<td>29.9</td>
<td>10851</td>
</tr>
<tr>
<td>Excise tax</td>
<td>4941.1</td>
<td>15.6</td>
<td>5618.4</td>
</tr>
<tr>
<td>Customs duties</td>
<td>1350</td>
<td>4.3</td>
<td>1481.5</td>
</tr>
<tr>
<td>Other taxes</td>
<td>1085.1</td>
<td>3.4</td>
<td>1242.9</td>
</tr>
<tr>
<td>3. Resource payments</td>
<td>4311.6</td>
<td>13.6</td>
<td>4816.1</td>
</tr>
<tr>
<td>and property tax</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Other revenues</td>
<td>3133.1</td>
<td>9.9</td>
<td>3685</td>
</tr>
</tbody>
</table>

Source: Ministry of Finance of the Republic of Uzbekistan

Turning to the expenses side, we find that there was observed increase across all position. As a result, the total government expenses increased by more than 15% in 2015. In this vein, government spending on economy and financing centralized investments increased by more than 13%. The government spending on social sphere and support increased by more than 10%. This may imply that the government was actively supporting economic activities in order to reduce potential effect of external shock on the economy of Uzbekistan.

3.4 Structural policies

To eliminate the potential effect of external shock on the economy of Uzbekistan government further carried out implementation of measures to sustain rapid economic growth. For example, as of 2015 the economy of Uzbekistan accommodated investments worth of 40.7 trillion soums which is 9.6% above of what have been achieved in 2014. Of these investment funds FDI accounted for more than 3.3 bln. USD which is 9.1% above 2014.

The central bank refinance rate decreased from 10% to 9% which led to increase of domestic credit to economy by 27.3% of which more than 79% was devoted to long term
credit loans for investment. This was in line with the government program on main directions on increasing sustainability of banking sector for the period 2011-2015.

113. The credits to small scale enterprises increased by more than 30% reaching nearly 4 billion USD. As a result, nearly 27000 new SMEs were created, which is 3% above of the levels in 2014. Of these newly created SMEs, 36% are in industry, 30.4% are in retail and food sector, and 11.2% in construction. The share of private sector in GDP reached 56.7%, and in industry – 38.9%. As a result, nearly 1 million new workplaces were created in 2015.

114. These achievements are in line with the reforms in private sector. According to the Doing Business report there were a number of improvements in various dimensions. For example, the number of days to register a property has decreased to 55 in 2015 from 62 in 2014. Number of tax payments per year decreased from 45 to 33. Although this figure is above than what is observed in Kazakhstan (6) and Russia (7).

115. The government realized 158 large scale investment and construction projects to the amount of 7.4 bln. USD. The production of consumer goods increased by 9.7%, foodstuffs – by 17.8%. The textile industry was booming as producers introduced 164 new products. And in line with the localization program for the period 2015-2019, in 2015 import-substitution effect was more than 1.56 billion USD. Moreover, the government reduced its presence in the economy by selling 608 state owned enterprises to the private sector of which 506 objects at a zero cost.

4. Operation support from ADB and other IFIs

116. A number of international financial institutions operate in Uzbekistan by offering loans and grants to government and private enterprises. Among them, ADB and World Bank are the key players that support development project in Uzbekistan. This support is devoted to infrastructure projects, construction of railroads and highways, further penetration of electricity, support to SME and public-sector reforms. These projects are aimed to increase the competitiveness of Uzbekistan and support balanced and sustainable growth rate in the long-term perspective. For example, in the framework of carrying out the ADB’s initiative on increasing renewable energy use in Asia, Uzbekistan has received a credit line to construct a solar power plant with capacity of 100MWt in Samarkand region. In a similar vein, Uzbekistan has attracted a credit line to the amount of 140 million USD to the development energy line project Talimarjan-Sogdiana. This project is aimed to construct to electricity line with the length of 218 kilometers.

117. As an example of support from IFI for the construction of railroads and highways can be a credit line from ADB in 2011 in the amount of 240 million USD for the construction of national highway to link Uzbekistan with other central Asia countries. This credit is given for 25 years and is devoted for reconstruction of Гузар - Бухара - Нукус – Бейнеу highway. This credit line is part of ongoing project to the amount of 600 million USD for the construction of reconstruction of highways. It is important to highlight that this support from ADB is part of a national program that was adopted by the government for the period 2009-2014 on the construction of modern highways to the amount of 2.6 billion USD. By the end of this program government forecast to construct and modernize 1500 km of highways.

118. These and other projects are aimed to support inclusive and sustainable development of Uzbekistan, to increase the competitiveness and to overcome the dependence of Uzbekistan on external factors. Taking into account that these are large scale program they should certainly increase the macroeconomic efficiency and contribution of private sector to GDP.
Moreover, IFI enabled Uzbekistan to smoothly overcome the effect of external shocks by offering credits and grants to good jobs creation and improving efficiency. For example, in 2016 Uzbekistan has received a credit to the amount of 100 million USD to foster private sector. This credit is devoted foster female entrepreneurship in the regions.

5. Conclusion and recommendations

120. The oil price drop, which was also followed by decline in the GDP growth of Russia and deteriorating external environment had negative implication for the economy of Uzbekistan. The transmission of the shock had two major channels of impact: trade and remittances. Also, it is important to note that due to low integration of Uzbek banking sector into global financial system the financial channel was insignificant. For example, there is observed substantial increase in gross capital of the banking sector which has increased from 5.5 trillion soums in 2014 to 7.8 in 2016.

121. However, the negative effect of trade and remittances was pronounced. The statistical modeling results show that the coefficient for the GDP growth of Russia is positive and statistically significant at the 1% levels. The quantitative meaning of the estimate in the framework of the effect of external shock via the slump in the economy of Russia suggests that the decline of GDP growth in Russia in 2015 (minus 3.7%) reduced overall exports growth of Uzbekistan by nearly 5 percentage points. Our modeling forecasts provide a number of scenarios. For example, according to the pessimistic scenario which suggests further stagnation in Russia: growth rate of Russian GDP is set at -1 – 0 %, the exports of Uzbekistan will decrease at rate of 3% in 2016 and exports are forecasted to grow at moderate rates of 1-2% and reach 12.3 billion USD in 2018.

122. Turning to the effect of external shock via remittances we observe that, the inflow of remittances has decreased. For example, share of Russian remittances in GDP of Uzbekistan decreased from nearly 10% in 2014 to 5% in 2015. However, this drop was considerably weaker compared to neighboring countries where the reduction in remittances inflows was more dramatic. There was 69.5% drop in the amount of transfers from Russia to Uzbekistan in H1 2016 in comparison to H1 2015. In addition, the number of Uzbek migrants working in Russia decreased by 500,000 to 2.2 million by January 2015 compared to August 2014. The major reason behind reduced remittances is the devaluation of Russian Ruble which is linked to decreasing oil prices and economic volatility. Though the pace of inflow of new migrants has reduced as the absorptive capacities of the Russian economy has been exhausted.

123. Monetary policy responded by accelerated exchange rate devaluation and rising imported inflation expectations. Fiscal policy was in line with existing trends. Although, it was forecasted to end 2015 FY with budget deficit, there was recorded a surplus at the level of 0.1 of GDP.

124. Therefore, there are a number policy suggestions for ADB and other IFIs for designing and implementing their operations in Uzbekistan in order to weaken the linkages that were discussed above. First, although the volume of exports has been growing over the past decade, the complexity of export baskets has not been increasing in line with the growth trends. Moreover, observed slowdown of exports growth in 2015 may further signal that there is need to diversify the structure of Uzbekistan exports. For example, Uzbekistan is ranked 86th in the economic complexity index, standing below such resource rich countries as Chile or United Arab Emirates. Therefore, the loans or financial support provided by IFI must be aimed to increase the industrialization level of private sector enterprises. In addition, there should be a number of institutional reforms that would reduce the difficulties in exporting goods and services from Uzbekistan. For example, it is important to foster regional
cooperation and integration by simplifying and harmonizing rules and regulations in transportation of the goods through the international borders. For example, according to World Bank 14 documents required per shipment to export goods from Uzbekistan, compared to 4 in Brazil and China. It is also to foster the services aimed at improving insurance of export goods and export contracts and offering bank guarantees through the system of state insurance in order to increase involvement of private sector in exports. It is also important to establish mutual agreements on the reduction of transit costs for the transportation of export goods. In order to increase the involvement of agro-private sector enterprises in the exports there is a need to establish consulting services in regions of Uzbekistan that would provide some market insight and trends for the producers. In this vein, large-scale infrastructure project such as construction of railways and modernization of airports would also positively contribute to the exports of goods and services.

125. Turning to the role of IFI in reduces the vulnerability of the economy of Uzbekistan to the external shocks via remittances channels we suggest that there is need to reform education sector of Uzbekistan in order to meet the needs of labor market. For example, according to World Bank there is potential to increase the employment productivity of Uzbekistan by improving the skills and competences of the university graduates (Ajwad et al., 2014; World Bank, 2014). It is important to foster cooperation between education (science) institutions and private sector. For example, the share of innovative products in the SME output does not exceed 5% while the share of R&D investment within the SME’s is below 10%.21 This implies that there is need to provide financial schemes that would allow SME’s to devote greater resources for R&D and offer new innovative products and services to the markets. There are a number of arguments why IFI should support R&D activities in the private sector. First, this would transform the burden of financing from the government to the private sector. Second, SME’s are more flexible compared to large state funding research institutions and therefore SME’s are more efficient in adopting and absorbing innovations. For example, largest share of all innovations in the US economy were created in the SME enterprises. In many developing countries such as China and India, SME is the birthplace of creative economy and innovation.

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