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INTERNATIONAL MONETARY FUND

NIGER

SELECTED ISSUES

December 22, 2016

Approved By
The African Department

Prepared by Mamadou D. Barry, Joseph Ntamatungiro and Paulo S. Lopes.

CONTENTS

BACKGROUND NOTE: NIGER-EXTERNAL STABILITY ASSESSMENT 4
A. External Sector Developments 4
B. Model-Based External Assessment 7
C. Broader Competitiveness Indicators 9
D. Conclusion 10

FIGURES
1. Balance of Payment Characteristics 2000, 2005 and 2010-16 and 2020 5
2. Nominal and Real Effective Exchange Rates, 2010-15 7
3. Results of the EBA-lite Equilibrium Real Exchange Rate Assessment 8
4. Structural Competitiveness Indicators 9
5. The Main Obstacles for Doing Business 10

TABLE
1. Current-Account Norms and Implied REER Misalignment 7

References 12

PREVENTING AND MANAGING NATURAL DISASTERS 13
A. Introduction 13
B. Profiling Natural Disasters in Niger 13
C. Social, Economic and Financial Cost of Disasters 15
D. Framework for the Prevention and Management of Disasters 17
E. Concluding Remarks 21

FIGURES
1. Number of Disasters, 1973-2014 ____ 14
2. Financial Cost Per Type of Disaster ____ 15
3. Food Inflation, 1999-2015 ____ 16
4. Inflation Developments, 1981-2015 ____ 16
5. Agriculture Growth, 1995-2015 ____ 16
6. National Framework for the Prevention and Management of Disasters and Food Crises ____ 18

TABLES
1. The Macroeconomic Impact of Recent Major Disasters, 1997-2009 ____ 17
2. Indicators on the Management of Food Crises, 2011-16 ____ 20

References ____ 23

GENDER INEQUALITY IN NIGER ____ 25
A. Gender Inequality Indicators ____ 25
B. Social Institutions ____ 28
C. The Economic Cost of Gender-Inequity in Niger ____ 31
D. Promoting Gender-Equality in the Context of Recent Government Programs ____ 32
E. Conclusion and Policy Considerations ____ 33

BOX
Niger's "Wahaya" Fifth Wife Tradition: An Extreme Form of Gender Oppression ____ 30

FIGURES
1. Indicators of Gender Equality and Regional Comparators, latest available data ____ 26
2. Improving Gender Equality Indicators, 2000-14 ____ 27
3. Indicators of Gender Discriminating Social Institutions and Regional Comparators, latest available data ____ 29
4. Income Losses Associated with Gender Gaps in Labor Participation ____ 32

References ____ 35

HARNESSING THE DEMOGRAPHIC DIVIDEND IN NIGER: OPPORTUNITIES AND CHALLENGES ____ 36
A. Introduction ____ 36
B. Population Dynamics in Niger ____ 37
C. Demographic Transition: Opportunities and Challenges ____ 41
D. Policy Recommendations ____ 45

FIGURES

1. Population Growth Estimates and Projections, 1950-2100 _____ 37
2. Under-5 Mortality Rate, 1950-2100 _____ 38
3. Total Fertility Rate, 1950-2100 _____ 38
4. Population Age Pyramid in Niger and Some Regions in the World, 1950-2100 ____ 41
5. Share of Working Age Population, 1950-2100 _____ 43

TABLE

1. Age Structure of the Population, 1950, 2015 and 2050_____ 40

References _____ **47**

BACKGROUND NOTE: NIGER-EXTERNAL STABILITY ASSESSMENT[1]

Consistent with the findings of the WAEMU external sector assessment, a model based analysis of Niger's external sector, using EBA-lite, suggests that the real effective exchange rate (REER) is broadly in line with macroeconomic fundamentals. This is also consistent with the findings of the 2014 external sector assessment using both the CGER methodology and EBA-lite. However, broader competitiveness indicators point to important issues, despite some improvement noted in recent years; also the recent depreciation of the Naira suggests some weakening in competitiveness, at least with Nigeria.

A. External Sector Developments

Balance of Payment Development

1. Terms of trade shocks and difficulties in the resource sector resulted in larger current account (CA) deficit in 2015. Many factors contributed to the deterioration of the current account in 2015: (i) economic downturn in Nigeria, the main regional trading partner of Niger; (ii) four-month technical closure of the oil refinery and lower oil prices, leading to a 38.4 percent decline in petroleum exports; and (iii) large government infrastructure projects and increased security needs associated with high level of imports. However, the CA deficit is expected to improve in 2016 because the decline of imports[2] will be larger than that arising from exports due to low commodity prices and adverse spillovers from the Nigeria's economic downturn. Services are still dominated by freight and the primary income balance is largely impacted by interest payments and profit repatriation by foreign investors in the mining and banking sectors. Remittances flows are limited in Niger.

2. The current account deficit is expected to remain elevated over the medium term to accommodate FDI driven investment in the oil and the uranium sectors. Major projects for the construction of pipelines to transport crude and refined oil for export are expected in the medium-term, as well as the construction of the Imouraren uranium mine expected to come on stream in 2021. Those projects will lead to a CA deficit averaging 18.3 percent of GDP between 2017 and 2019, projected to improve later as capital goods imports decline and exports benefit from the completion of those projects.

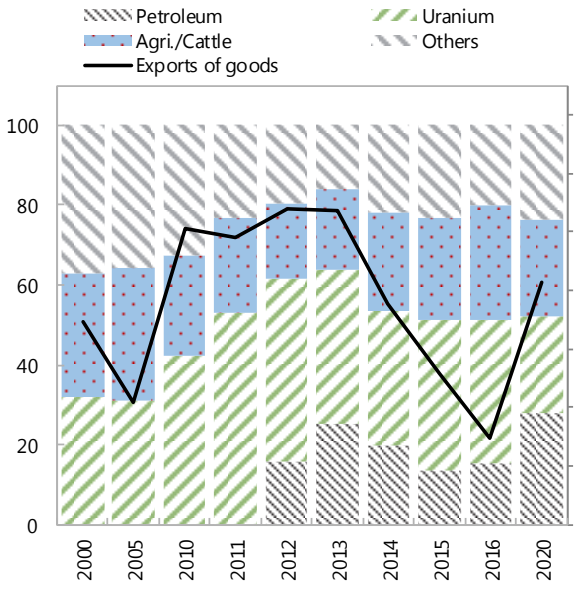
[1] This note was prepared by Mamadou D. Barry.

[2] Decline in import will stem from reduced government investment, completion of major projects, and reduced economic activities.

Figure 1. Niger: Balance of Payment Characteristics 2000, 2005, 2010-16, and 2020

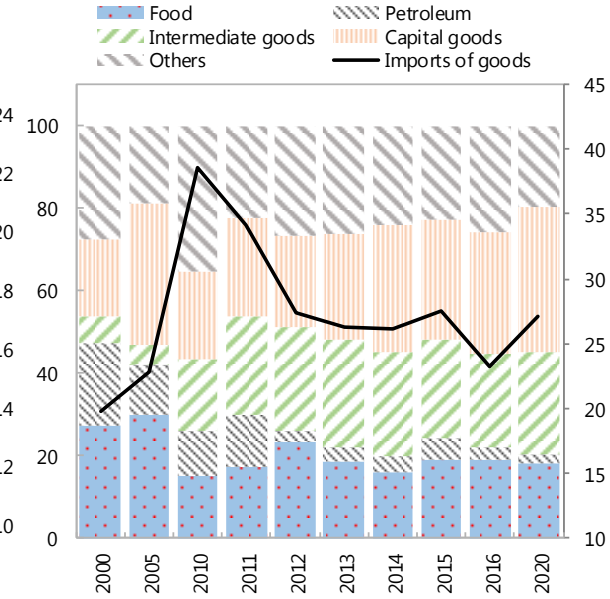
Composition of Exports

Exports that has been increasing prior to 2013, has been declining following the commodity prices decline.



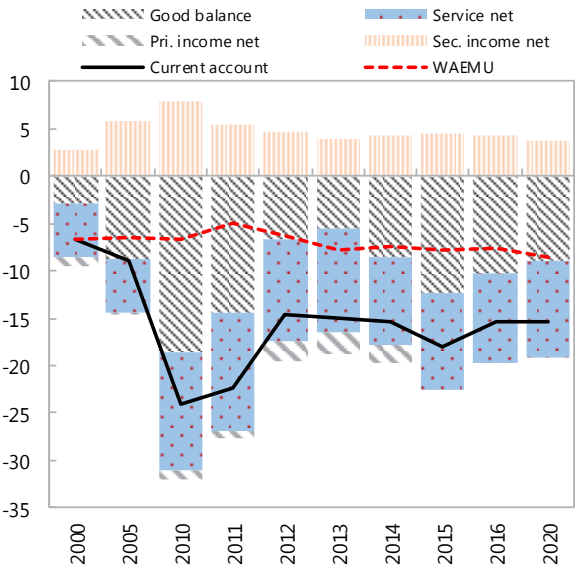
Composition of Imports

Accordingly, import has also been declining after the peak around 2010 to accommodate the heavy investment in the oil sector.



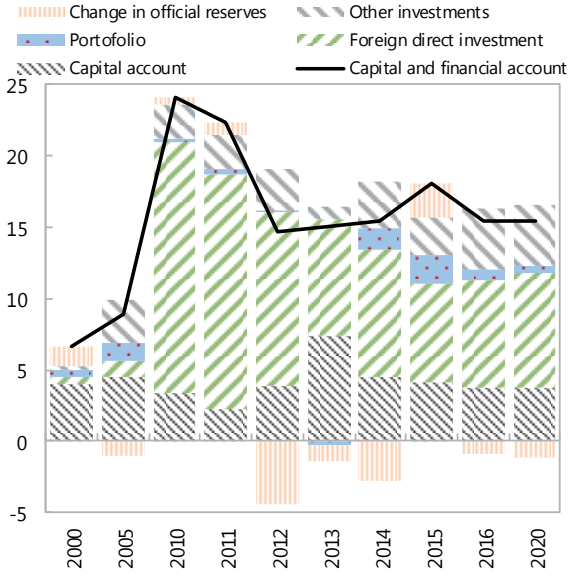
Composition of the Current Account

Large trade and service deficits are the drivers of the large current account deficit...



Composition of the Financing of the Current Account

... mainly financed by large FDI, donor's support through project grants and loans allowing some reserves accumulation.



Sources: Niger authorities; and IMF staff calculations.

3. Largely dominated by donor's support prior to 2010, the financing of the BOP has largely shifted to foreign direct investment (FDI) flows. Over the past ten years, large foreign direct investment flows from important projects in the oil industry have risen. In particular, those from the construction of the SARAZ refinery, which was completed at end 2011. Then the share of FDI declined in 2015 due to heightened security risks from terrorist attacks, combined with the lower commodity prices that delayed major projects in the oil sector. The oil pipeline project is now expected to complete in 2020 and the Imouraren uranium project has been phased out until uranium prices recover. The overall external balance is projected to be in positive territory in 2016, with some reserve accumulation as FDI rises due to less security tensions, and debt flows due to government concessional borrowing to finance infrastructure projects. In the near term, FDIs are expected to remain elevated owing to the financial flows tied to large projects in the extractive industries.

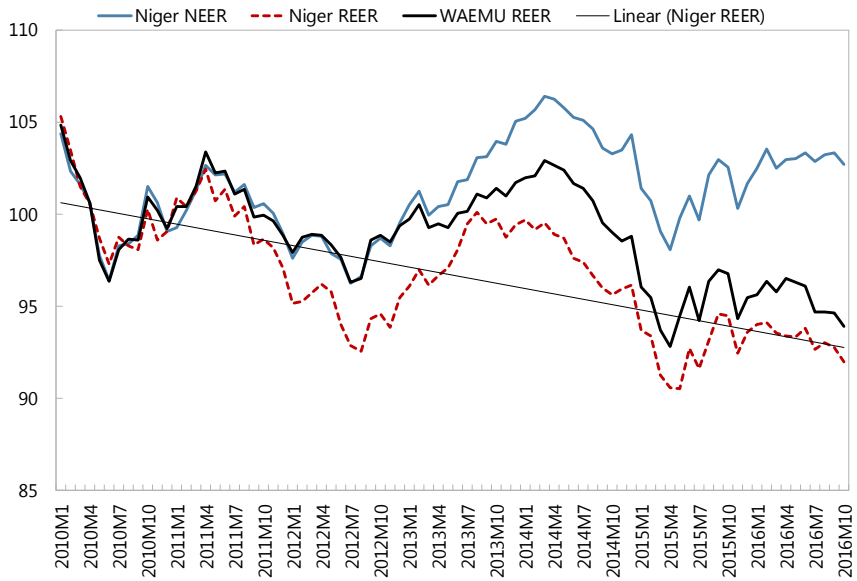
4. Foreign reserves remain adequate with high imports coverage. At end-2015, Niger's gross official reserve covers 4.6 months of the estimated 2016 imports. Besides, as member of the WAEMU monetary union, Niger could benefit from the pooled regional central bank (BCEAO) foreign reserves to meet external payments needs and therefore sustain large current account deficits.[3] The WAEMU pooled reserves represented up to 5 months of regional imports.

Exchange Rate Development

**5. Niger's real effective exchange rate (REER) has been depreciating recently, echoing the fluctuations of the Euro against the US$** (Figure 2). Niger's REER has been trending downward since 2010, largely following the movement of the WAEMU's REER, closely linked to the fluctuations of its peg (Euro). Since early 2011, lower inflation on average in Niger relative to WAEMU, and Nigeria (major regional trading partner)—with larger inflation and a relatively stable Naira—resulted in a permanently more depreciated REER in Niger. The subsequent depreciation of the Euro against the US$ since 2014, could be source of the recent depreciation of the REER which has contributed to reverse the competitiveness weakening observed in 2013 due to higher inflation differential (2.3 percent in Niger and 1.3 percent WAEMU's average) and large CA deficit (15 percent in Niger and 6.8 percent WAEMU's average).

[3] An additional safeguard is represented by the fact that the French Treasury guarantees the convertibility of the CFAF into Euros.

Figure 2. Niger: Nominal and Real Effective Exchange Rates, 2010-15



Source: IMF staff calculations.

B. Model-Based External Assessment

6. Based on the current level of policies in Niger, the EBA-lite based-models do not point to significant misalignments of Niger's real effective exchange rate (Table 1). This result is consistent with the 2014 CGER model based external assessment for Niger and also with the early 2016 WAEMU's external sector assessment. However, this result should be interpreted with caution, giving the difficulties in assessing external sector competitiveness for small countries with limited data, undergoing structural transformations and heavily dependent on commodity export like Niger. In addition, the recent weakening of the Naira could be source of weakening competitiveness, at least with regard to economic relations with Nigeria.

Table 1. Niger: Current-Account Norms and Implied REER Misalignment[1/]

Initial Estimates			
	Current account/GDP		Real exchange rate gap
	Norm	Underlying	
CA model	-9.4	-18.1	15.0
External sustainability	-11.4	-15.4	6.4
IREER			-12.0

Alternative scenario with an underlying CA level of -10.2 percent of GDP			
	Current account/GDP		Real exchange rate gap
	Norm	Underlying	
CA model	-9.4	-10.2	2.4
External sustainability	-11.3	-10.2	-1.9
IREER			-12.0

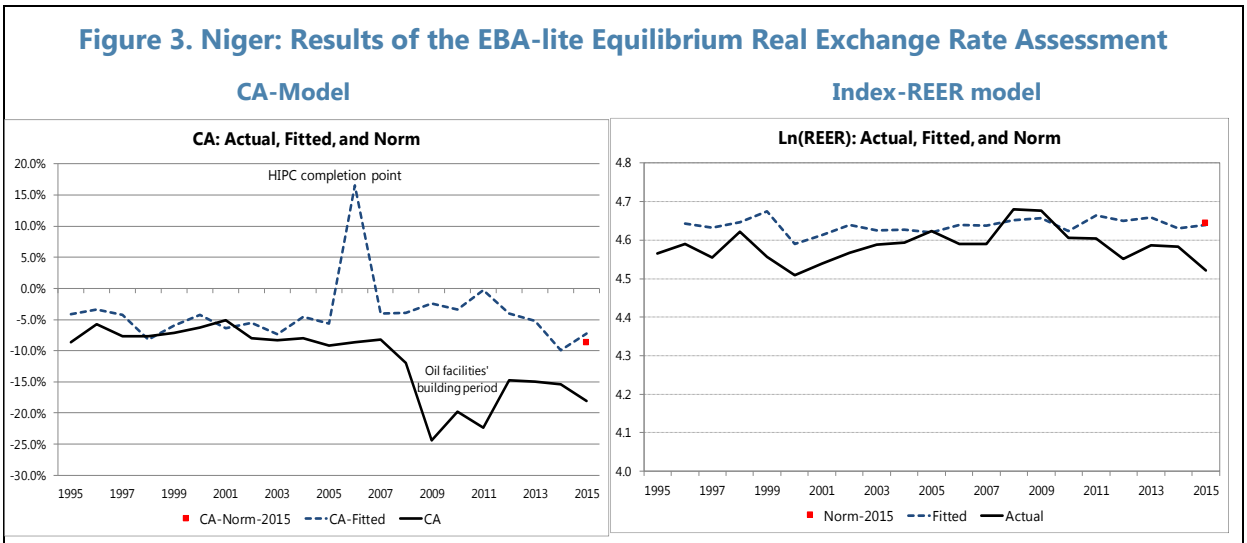
Source: IMF staff calculations.

[1/]Note:

- The current account elasticity used (-0.63) is based on the median trade elasticity for small countries reported in Tokarick (2010).
- In the initial estimates, the underlying-CA is the CA in 2015 for the CA-model and the underlying-CA is the CA in 2020 for the ES-model with the objective of stabilizing the NIIP at -79.6 percent of GDP consistent with the CA-norm of -9.4 percent of GDP obtained in the CA-model.
- The alternative scenario uses a lower current account that discounts for FDI driven investments and the large public investments.

7. The CA approach of the EBA-lite indicates an overvaluation of 15 percent at end-2015. The current account approach compares Niger's actual current account balance in 2015 with the model-prediction based on fundamentals driving saving and investment decisions and the desired policies. If the model prediction and the underlying-CA are far apart, that may suggest a large REER misalignment and require an adjustment. The predicted CA-norm is -9.4 percent with a policy gap[4] of 1.4 percent of GDP. The policy gap originates mainly from the fiscal sector (1 percentage point), which calls the need for improving fiscal outcomes. Giving the underlying-CA of -18.1 percent of GDP (the CA in 2015), the CA approach suggests an overvaluation of 15 percent that is larger than what was suggested in the 2014 assessment (6.2 percent overvaluation) with an underlying-CA of -10.2 percent of GDP. However, using the same underlying-CA as in 2014, the overvaluation drops to 2.4 percent, showing some improvement due to the decline in inflation in Niger and the recent depreciation of the Euro. The model predicts well the CA of Niger before the completion point of the highly indebted poor country initiative and the country benefiting from the multilateral debt relief initiative (2006), however with the FDI-driven large CA recorded in recent years, the model prediction became quite poor. This calls for prudence in interpreting the results, giving the limitation of the CA approach in analyzing countries heavily dependent on commodity export, like Niger.

Figure 3. Niger: Results of the EBA-lite Equilibrium Real Exchange Rate Assessment



Source: IMF staff estimates.

8. The external sustainability approach suggests a higher CA-norm and a smaller overvaluation. The external sustainability approach compares the underlying-CA (the CA projected in 2020, -15.4 percent of GDP) with the model predicted CA needed to stabilize the net international financial position (NIIP) to a defined level within a defined period. The NIIP of Niger at the end of 2014 was -64.3 percent. To maintain that level of NIIP, the current account norm is estimated at -10 percent of GDP, resulting in an overvaluation of 8.5 percent. Targeting the NIIP that is compatible with the CA norm predicted by the CA approach of the EBA-lite (-79.3 percent of GDP), the stabilizing CA-norm will be -11.4 percent of GDP, resulting in a lower REER gap 6.5 percent (Table 1). The probability of

[4] The policy gap is the sum of the deviation of Niger's actual policy fundamentals from their optimal level.

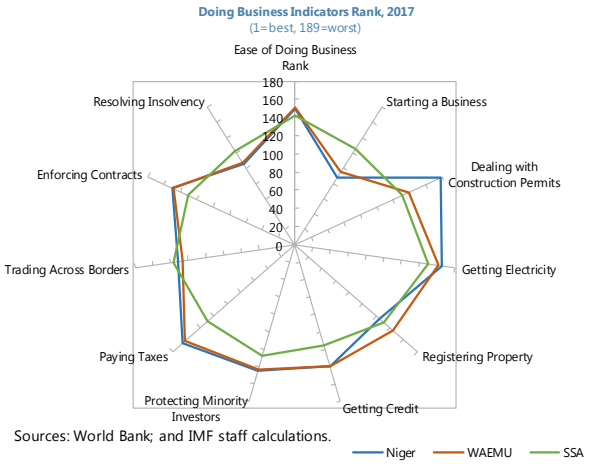
external crises in Niger provided by the univariate Probit model is very low (0.9 percent), with a ratio of NFA to GDP of 17.5 percent, far from the threshold -49 percent. However, the multivariate Probit model that takes into account more factors, points to a higher probability, 41.2 percent (the threshold being 20 percent).

9. Finally, the index-REER approach point to an undervaluation. This approach is different from the two first approaches because it estimates directly the fitted values of the REER, using a set of fundamentals that cause persistent deviations from the purchasing power parity. The REER norm is calculated based on the fitted value of REER predicted by the model with an adjustment for the policy gaps. The estimation suggests an undervaluation of 12 percent.

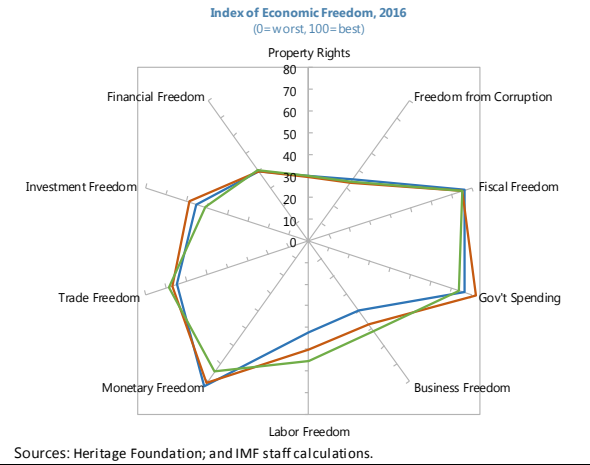
C. Broader Competitiveness Indicators

10. Niger's challenging business environment has been improving in recent years but the country continues to lag behind in some components of the doing business index, hindering the development of a strong private sector. Niger's ranking in the doing business index has been improving in the last three years. It went from 176th rank out of 189 countries in the 2014 World Bank's Doing Business Report to 150th rank out of 190 countries in the 2017 Report, increasing by 26 notches. A number of reforms contributed to this improvement, including: reducing the minimum capital requirement for businesses, streamlining procedures to open a business through the operational of a one-stop-shop, reducing the time needed for businesses to access water, improving regulatory framework for credit reporting, reinforcing dialogue between government and the private sector, and creating a court of commerce to settle business disputes. Niger went from being the worst business environment in the WAEMU, excluding Guinea Bissau, to being at the fourth best in WAEMU. However, challenges remain. Nigerien firms face more severe challenges than average WAEMU and SSA in paying taxes, getting electricity, and dealing with construction permits (Figure 4). Also, the 2016 doing business reports that access to electricity remains a major challenge for competiveness in Niger due to limited supply. The reports added that it takes 115 days to have an energy connection that could cost 6,200 percent of income per capita. Furthermore, the

Figure 4. Niger: Structural Competitiveness Indicators



Sources: World Bank; and IMF staff calculations.

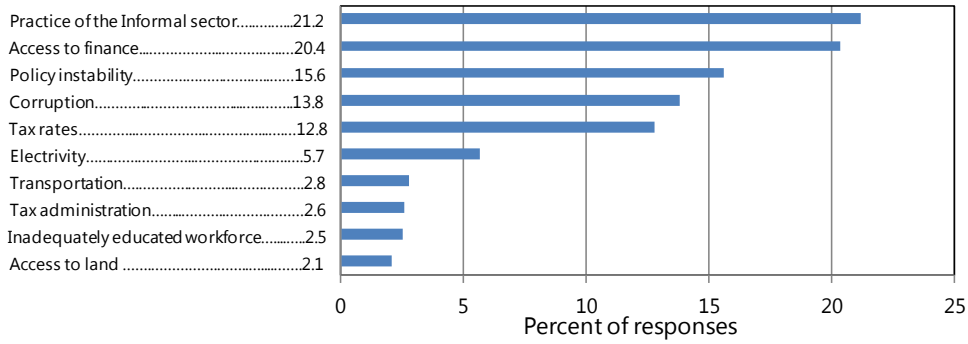


Sources: Heritage Foundation; and IMF staff calculations.

2009 World Bank-International Finance Corporation Enterprise Survey reported that firms identified as main obstacles the presence of a large informal sector that poses competitive challenges to the formal sector, and the difficult access to finance (Figure 5).

11. Niger ranked in the 2016 Heritage Foundation's Index of Economic Freedom, 129 out of 178 countries, staying among the countries with constrained economic environments (mostly unfree). In the WAEMU, Niger's score was only better than Guinea-Bissau and Togo. Niger score better than the average WAEMU and SSA on monetary freedom, but it scored worst in labor freedom, business freedom, and also in government spending, pointing out: (i) rigidities in the labor market with large unemployment and a strong informal sector; (ii) business environment challenges described above; and (iii) the need to reinforce the ongoing reforms aimed at improving PFM.

Figure 5. Niger: The Main Obstacles for Doing Business



Source: The World Bank and International Finance Corporation cooperate survey data of 2009.

12. Although being a medium policy performer, Niger ranks low on governance indicators. Niger's government effectiveness, as measured by the World Bank's Country Policy and Institutional Assessment (CPIA) indicators was 3.5 (medium performer) in 2015. Transparency International ranks Niger 99 out of 167 countries in its 2015 Corruption Perception Index, an improvement relative to the 113th position held in 2012. Also, for the Mo Ibrahim overall governance index, Niger scores 48.4 in 2014, declining by 0.6 from 2011 and ranked 33rd of 54 African countries. The new anti-corruption campaign launched by the President after his reelection for a second term earlier this year, could help improve governance and reinforcement accountability in Niger, benefitting economic development, especially by increasing the private sector's contribution.

D. Conclusion

13. External sector assessment of Niger using EBA-lite suggests that the REER is broadly in line with macroeconomic fundamentals, however broader indicators show serious structural competitiveness issues. The three EBA-lite approaches do not provide a consistent external sector assessment. The current account and external sustainability approaches indicate an overvaluation of the real effective exchange rate, while the index-REER approach indicates an undervaluation of the REER. Given the shortcoming of these approaches in predicting the underlying current account of

Niger in a situation of large dominance of commodity exports and the structural transformation experiencing the country, staff assess that the Niger REER appear to be in line with fundamentals. This result is consistent with the external assessment conducted by WAEMU in early 2016. However, the recent weakening of the Naira could be source of weakening competitiveness, at least with regard to economic relations with Nigeria. In addition, in view of Niger's poor performance in terms of structural competiveness measurement, fast-tracking structural reforms aim at improving the business climate, financial sector deepening, political stability, revenue mobilization, public financial management, and informal sector regulation, will improve productivity and enable Niger achieve faster and inclusive growth. Also, the efforts on fighting corruption and the construction of a 100 MW thermal power plan of Gourou-Banda expected to be completed in 2017, could help improve energy supply and enhance private sector competiveness that is necessary for job creation and reducing poverty.

References

International Monetary Fund (IMF). 2016. *Methodology Note On EBA-lite*. Washington, DC.

Tokarick, Stephen 2010. "A Method for Calculating Export Supply and Import Demand Elasticities". IMF Working Paper 10/180, International Monetary Fund, Washington, DC.

PREVENTING AND MANAGING NATURAL DISASTERS[1]

Natural disasters have had a significant impact on Niger's macroeconomic performance. Their adverse effects on wealth and food security hamper poverty reduction efforts while unexpected government spending in response to related emergency humanitarian needs is source of fiscal slippages. Natural disasters impacts are also noticeable on the price level as well as they are source of variability in most socio-economic variables, including economic growth. Thus, as natural disasters become more recurrent in Niger, their in-depth understanding becomes critical for economic program design and management.

A. Introduction

1. Niger faces recurrent natural disasters that entail significant wealth and social costs, as well as humanitarian consequences. These disasters mostly result from the country's geographical situation and the fragile ecosystem. Climatic change and high population growth compound the impact of natural disasters and accelerate natural degradation. Their adverse impact on incomes and welfare is particularly significant given the high dependence of the economy on rain-fed agriculture (agriculture contributes over 40 percent of GDP and provides incomes to more than 80 percent of the population). Although the authorities have built a strong mitigating framework to deal with food insecurity from these disasters, Niger still faces severe food shortages in drought years and/or plague of locusts, which maintains food and nutrition insecurity. Over recent years, natural disasters have become more frequent; their impact has however been less acute due to the strengthening of institutions in charge of disaster prevention and risk management, including early warning systems, contingency plans, and resilience programs.

2. This background note profiles first natural disasters affecting Niger, then assesses its wealth and social costs before presenting the risk management framework and related policies to contain vulnerabilities.

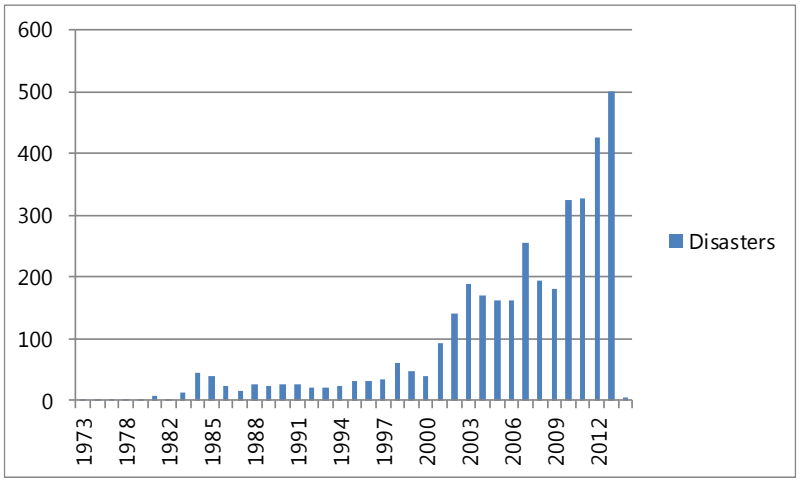
B. Profiling Natural Disasters in Niger

3. Niger is among the 34 countries with very high natural disaster risk and the biggest hunger problem (World Risk Report, 2015). Niger's 80 percent land area is covered by the Sahara Desert, and only 1 percent of the territory receives 600 mm of annual rainfall on average. Population density is extremely low, with communities predominantly living in the arable non-desert zone in the southern part of the country mostly on subsistence crops and livestock. Extreme climatic conditions increase vulnerability to famine, and impact severely agricultural output, thus destabilizing macroeconomic outcomes entailing important wealth effects, and hindering poverty reduction efforts in exposed rural areas. Other parts are threatened by desertification, destructive farming practices, and poor management of the flow of the Niger River.

[1] This note was prepared by Joseph Ntamatungiro with the support of Chayabou Abdou. The note benefitted from reviews by Fode Ndiaye, UN Resident Coordinator and Diawoye Konte of the local UNDP office.

4. The country is recurrently subject to a range of disasters. Disasters comprise droughts, locust invasions, floods, sometimes these disasters being combined. According to the National Disaster Information Management System (DESINVENTAR), the number of disasters recorded between 1973 and 2014 is estimated at 3,702, of which 1,526 epidemics (human), 765 floods, 487 epizooties (cattle), 310 wild fires, 289 droughts, and 158 ravagers and locust pilgrims. The frequency and number of natural disasters have increased over time; about 85 percent of disasters registered during 1973-2014 occurred between 2001 and 2014 (Figure 1).[2]

Figure 1. Niger: Number of Disasters, 1973-2014



Source: DESINVENTAR.

5. The most damaging of these disasters have been:

(i) **Droughts**. Cyclical droughts generally lead to food shortages and, in some cases, famines. Noted were the series of droughts in the 1970s and 1980s, and more recently in 2000, 2004–2005, 2009-2010 and 2012. Droughts destroy crops and cattle (particularly in the Tahoua and Tillaberi regions), and often force population to leave affected areas. The latest two droughts (2009-2010 and 2012) affected 7 million people each. However, as disaster prevention and risk management have become more effective, impacts of droughts have been contained.

(ii) **Floods**. Floods are generally associated with high rainfalls, soils with limited water infiltration, and uncontrolled occupation of flood-prone areas and river beds. Floods affect mainly desert regions of Agadez and Tahoua, killing people, and destroying road infrastructure, houses and entire herds of cattle, sheep, and camels. Floods in 2010 and 2012 affected 500,000 people, causing 60 deaths in 2012. They however have a limited negative impact on agricultural production, as they are localized and coincide with exceptional rainfalls that are generally good for crops in the country as a whole. Floods also affect constructions in flood risk zones in cities

[2] The increase in the number over time may reflect a statistics bias due to improvements in recording disasters.

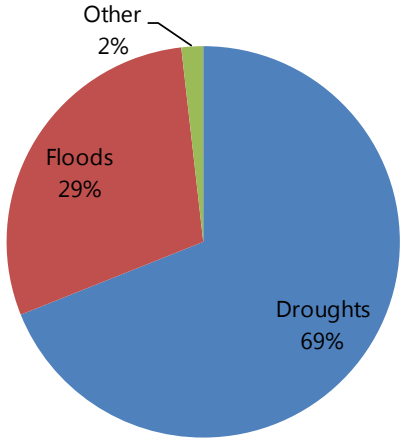
with no drainage system and along the Niger and Komandougou rivers. Without adequate risk prevention, floods continue to cause havoc; according to the UN Office for the Coordination of Humanitarian Affairs (OCHA), more than 123,000 people were affected by floods as of September 23, 2016, with 50 deaths and about 14,000 houses destroyed, essentially in Maradi, Tahoua and Agadez.

(iii) **Invasions of locusts**. Locusts invade from North Africa and the Middle East and proliferate when rain falls are high (exceeding 200 mm according to IRD), therefore the appellation of "curse of good rainfalls", destroying plantations of cereals, fruits and vegetables. In 1988, the invasion of locusts necessitated the treatment of almost 1 million hectares of infested land (Panapresse). In 2004, locusts multiplied dramatically, infesting the northern regions of Mali and Niger, in the worst locust infestation in 15 years (SSA REO October 2005). Niger was again attacked in 2009 and 2012, however with less catastrophic devastation, thanks to the work of the Locust Monitoring Center (CNLA) established in 2007 with donor assistance for early detection and pesticide treatment.

C. Social, Economic and Financial Cost of Disasters

6. Disasters' economic and social impacts have been important. According to the DESINVENTAR database, between 1973 and 2014, disasters took 10,625 human lives, killed cattle (17 million), destroyed 71,986 houses, and ruined 2.6 million hectares of crops. The financial cost was estimated at US$3 billion, with droughts and floods' impacts being the costliest, followed to a lesser extent by locusts' (Fig. 2).

Figure 2. Niger: Financial Cost Per Type of Disaster

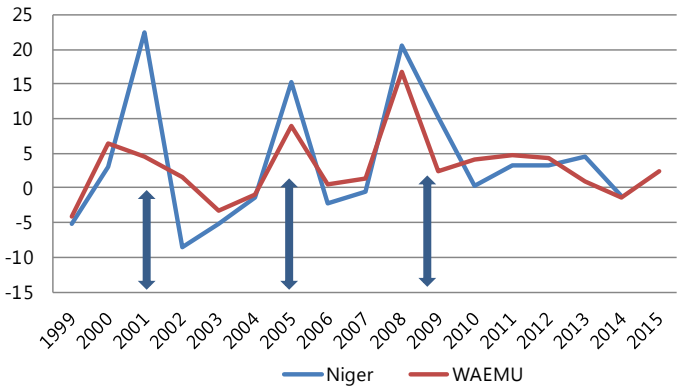


Sources: Niger authorities; and IMF staff calculations.

Disasters have increased food insecurity and Niger's economic vulnerability, complicating poverty reduction efforts. To feed Niger's population, the government has had to purchase grain locally or abroad and rely on foreign aid. Related government spending has been fully accommodated in Niger's IMF-supported programs (Dawson, 2005).

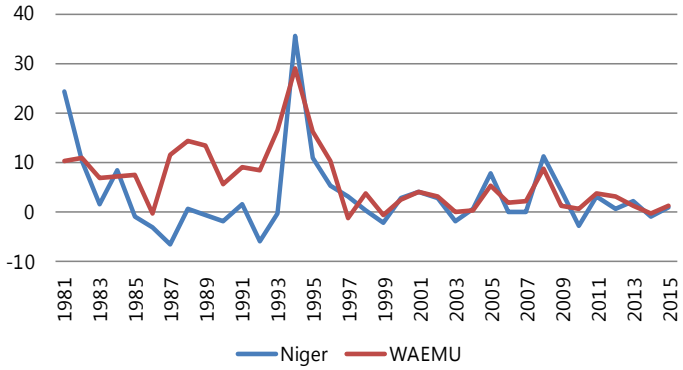
7. Disasters have impacted adversely macroeconomic performance, by destabilizing agriculture output, increasing food inflation volatility, and deteriorating fiscal and current account positions (Table 1). Natural disasters' adverse impact on real economic activity and prices has generally been temporary, as drops in agricultural production were followed by fast rebounds (Fig. 3-5). Overall, price' pressures seem to have faded over 2 years owing to food production recovery and government safety nets program in food support. Thanks to the effective food security management framework, prices stabilized since 2000 and Niger appears to have performed somewhat better than the WAEMU's peers on the inflation front (Fig. 4). Similarly, with increased irrigation with the 3N Initiative, agriculture output has become less volatile over recent years, despite the more frequent droughts (Fig. 5). These noticeable achievements on resiliency result from increased irrigation and more effective social safety nets. Nevertheless, the increasing disasters have contributed to weakening further the structurally fragile fiscal and current account positions. The impact of agriculture output volatility on the incomes of poor households with no hedging instruments could also be persistent.[3] A study conducted by the *Institut de Recherche pour le Développement* (IRD) on Mali, a neighbor country subject to similar disasters,

Figure 3. Niger: Food Inflation, 1999-2015



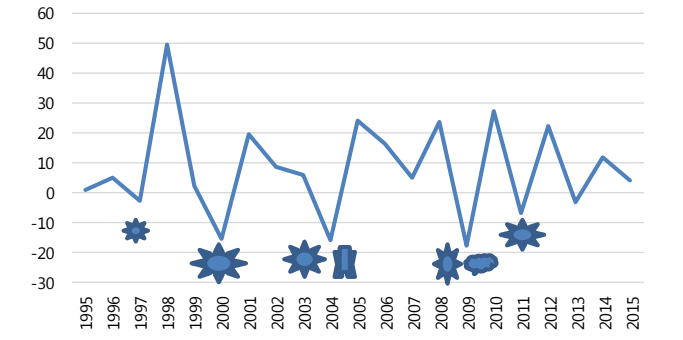
Sources: Niger authorities; and IMF staff calculations.

Figure 4. Niger: Inflation Developments, 1981-2015



Sources: Niger authorities; and IMF staff calculations.

Figure 5. Niger: Agriculture Growth, 1995-2015



Sources: Niger authorities; and IMF staff calculations.

[3] Because of limited access to bank credit, 40-50 percent households in food insecurity situation are reported heavily indebted through informal channels, which puts them into a vicious over-indebtedness circle that perpetuates vulnerability (DNPGCCA, 2016).

found a long-term socio-economic impact of the 1987-89 locust invasion through the education channel. Reflecting the destruction of crop incomes, infant school attendance in affected areas dropped by 25 percent, the drop for girls being even higher. Generally, REO (2016) finds that infrastructure and human capital destruction by natural disasters have a significant negative in the long term on growth in Sub-Saharan African countries.

Table 1. Niger: The Macroeconomic Impact of Recent Major Disasters, 1997-2009

Nature and Period of disasters	t-1	**t**	t+1	t+2
Drought of 1997 [1/]				
Real GDP growth (%)	5.1	**0.5**	12.7	1.0
Of which: agriculture	5.0	**-2.9**	49.6	2.3
Average inflation	5.3	**2.9**	0.3	-2.3
Of which: foodstuff	...	**...**	...	-5.2
Overall fiscal balance, excl. grants	-5.7	**-8.0**	-8.6	-10.5
Current account balance, excl. grants	-5.8	**-7.7**	-7.7	-7.2
Drought of 2000 [2/]				
Real GDP growth (%)	1.0	**-2.6**	8.0	5.3
Of which: agriculture	2.3	**-15.3**	19.5	8.6
Average inflation	-2.3	**2.9**	3.9	2.7
Of which: foodstuff	-5.2	**3.1**	22.5	-8.6
Overall fiscal balance, excl. grants	-10.5	**-8.8**	-8.5	-8.1
Current account balance, excl. grants	-7.2	**-6.2**	-5.1	-8.0
Drought and locusts of 2004 [3/]				
Real GDP growth (%)	7.1	**-0.8**	8.4	5.8
Of which: agriculture	5.9	**-15.7**	24.2	16.6
Average inflation	-1.9	**0.6**	7.8	0.1
Of which: foodstuff	-5.2	**-1.3**	15.2	-2.1
Overall fiscal balance, excl. grants	-7.7	**-9.4**	-9.5	-6.8
Current account balance, excl. grants	-8.3	**-8.0**	-9.2	-8.6
Droughts and floods of 2009 [4/]				
Real GDP growth (%)	9.6	**-0.7**	8.4	2.2
Of which: agriculture	23.8	**-17.6**	27.1	-6.7
Average inflation	11.3	**4.3**	-2.8	2.9
Of which: foodstuff	20.6	**10.3**	0.3	3.4
Overall fiscal balance, excl. grants	-4.4	**-9.7**	-7.0	-6.7
Current account balance, excl. grants	-12.0	**-24.4**	-19.8	-22.3

Sources: DESINVENTAR; and IMF staff calculations.

[1/] The impact on prices in 1997 is blurred by inflationary effects of the 1996 coup d'état by Baré Maïnassara.

[2/] The impact on fiscal and current account balances in 2000 is masked by slippages linked to the 1999 coup d'état.

[3/] The inflationary impact, disguised in 2004 by the still unwinding high inflation of 2001, was felt in 2005.

[4/] The high inflation in t-1 reflects the increase in international food prices of 2008.

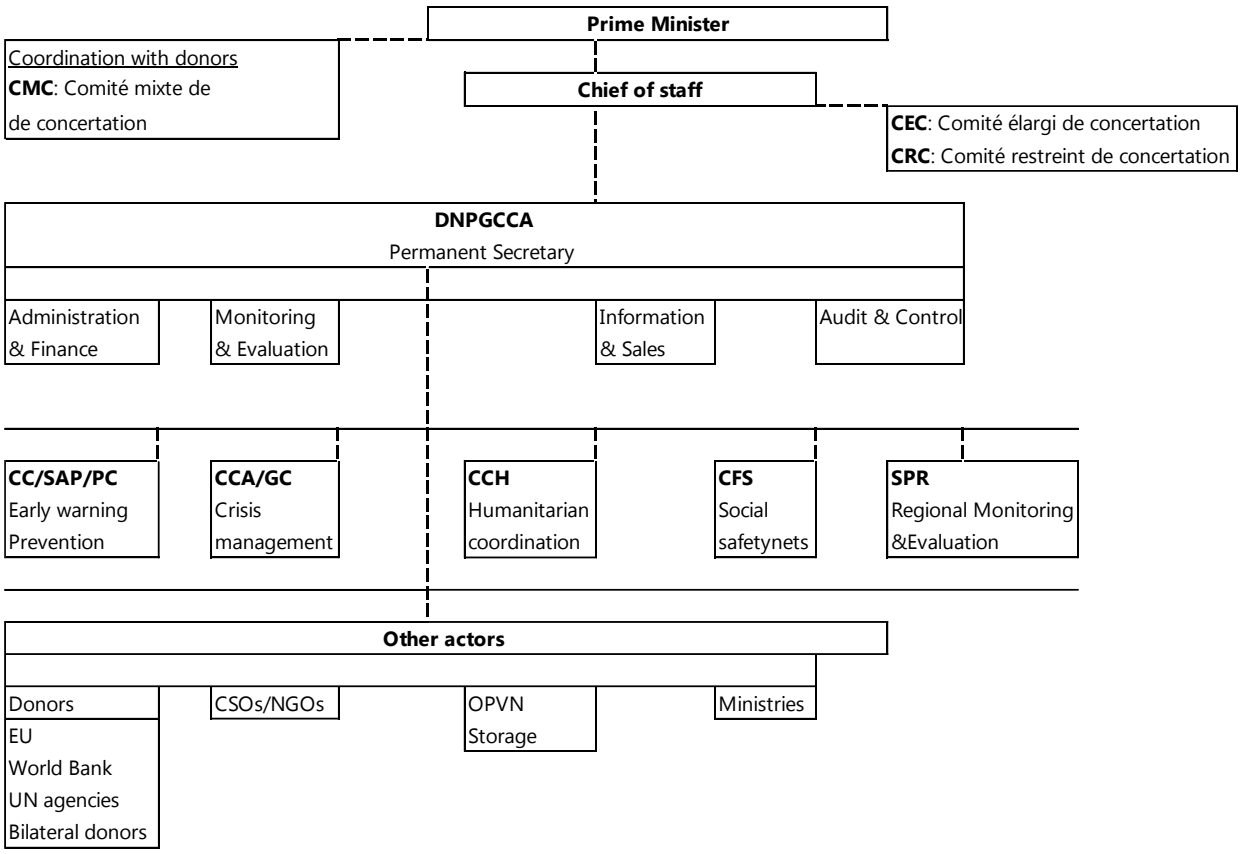
D. Framework for the Prevention and Management of Disasters

8. Niger has developed over time a strong risk prevention and management framework for natural disasters (Fig. 6). The framework for prevention and management of disasters and food crises (DNPGCCA), initially established in 1989 as the food crisis cell (CCA), has been strengthened with donor support since the early 2000s, and particularly in 2006, 2012 and 2014. As a result, the framework's

coverage has expanded, including early warning systems (EWS), prevention, social safety nets and humanitarian aid coordination. Under the Prime Minister's Office, DNPGCCA coordinates government actions at central and regional levels in the areas of information collection and dissemination on food vulnerability disaster prevention and management, as well as monitoring and evaluation. The structure relies on the logistical support of technical ministries and public sector organizations, including Niger's Office of Food Products (OPVN), charged with managing food reserves.[4]

9. DNPGCCA also plays an advocacy role and also manages humanitarian aid. Advocacy role is targeted to civil society, non-government organizations, and donors supporting the framework. Humanitarian aid support to people displaced by conflicts and floods has recently been deployed within the Ministry of Humanitarian Action and Disaster Management (HADM) established in May 2016.

Figure 6. Niger: National Framework for the Prevention and Management of Disasters and Food Crises



Source: Nigerien authorities.

[4] For 2016, the UN Humanitarian Response Plan has identified 174 actors involved in crisis prevention and management activities on the ground.

10. Donors provide support under a memorandum of understanding signed on February 28, 2005. The memorandum defines the modalities of partnership between the government and donors who support technically or contribute financially to the prevention and management of food crises in Niger. The two key modalities of intervention relate to the Common Intervention Fund (FCI), to finance prevention/alleviation actions and studies, and the National Food Reserve (SNR) with an optimal capacity of 110,000 tons.[5] Signatories to this framework include multilateral organizations (European Union, World Bank, UNDP, WFP, FAO and UNICEF) and bilateral donors (France, Switzerland, Italy, Germany, Belgium, Canada, Luxembourg and Spain). The European Union, the biggest contributor, is the lead donor. Consultation with donors is conducted through the Mixed Concertation Committee (CMC), chaired by the Prime Minister, the Restricted Concertation Committee (CRC), chaired by the Prime Minister's chief of staff, and the Extended Concertation Committee (CEC), chaired by the DNPGCCA's Permanent Secretary. During 2011-2015, Niger mobilized CFAF700 billion under the agreement to finance the bulk of the Support Plan to Vulnerable Populations (PSPV).

11. The Support Plan to Vulnerable Populations (PSPV) is DNPGCCA's central operational framework.[6] The plan is translated into a document, main tool for planning, programming and implementing interventions in favor of persons vulnerable to food and nutritional crises, as well as natural disasters. The preliminary plan is established in the last quarter of each year, based on extensive, participatory and inclusive post-crop regional vulnerability assessments. The final document incorporates actual information of the vulnerability map. This map is set up based on the information collected by vulnerability monitoring observatories (OSV) and the community early warning systems for urgent responses (SCAPRU), a network of early warning cells established in villages countrywide. The support plan, which is established for the January-September period, includes the following main prevention, emergency response and resilience actions:

- Cash for work and food for work;
- Unconditional cash transfers;
- Targeted free food and cash distribution;
- Assistance in non-food products and other assets essential to survival;
- Sale of cereals and livestock food at moderate prices;
- Building of stock reserves of cereals and livestock food;
- Distribution of improved seeds to farmers in vulnerable zones;
- Prevention of locust invasions.

[5] The SNR includes a physical cereal stock (millet, sorghum and corn) with an optimal capacity of 50,000 tons, the national security stock (SNS) and a financial stock, the food security fund (FSA), with a purchasing capacity of 60,000 tons.

[6] Niger subscribed to African Risk Capacity (ARC), which has been providing drought sovereign insurance to African Union member countries since 2013. For a premium of CFAF 1.5 billion, Niger recently received from ARC CFAF 1.9 billion that was used to cover activities under the framework in drought-hit regions.

12. The PSPV framework has provided needed help to vulnerable populations (Table 2). During 2011-2015, this contingent financing plan supported almost a million of vulnerable households affected mainly by food insecurity and floods. Part of the funding also supported refugees and people displaced by terrorist activities in the sub-region.[7] The budget of the PSPV, mainly donor-funded plan, amounted to 4-5 percent of GDP during 2013-15 executed at a 60-65 percent rate. Financial support through various cash transfer systems has amounted annually to almost 1 percent of GDP. The framework helped replenish food reserves, sell cereals and livestock food at moderate prices and distribute ameliorated seeds to farmers. These actions seem to have played a role in the success in maintaining low inflation by WAEMU regional standards in spite of the recurrent natural disasters.

Table 2. Niger: Indicators on the Management of Food Crises, 2011-16

Indicators	Actual					Projections
	2011	2012	2013	2014	2015	2016
Number of vulnerable households in situation of food crisis during pre-harvest period (May-August)	401,756	917,419	599,531	1 072 398	682,477	271,189
Number of vulnerable households in situation of food crisis after the agricultural campaign	779,838	554,270	599,659	369 372	479,812	188,840
Of which: number of vulnerable households in situation of food insecurity taken care of by the framework	374,395	556,807	799,338	883,072	945,863	
Number of households victims of inundations	6,029	79,903	150,000	300,000	13,761	15,000
Of which: Number of households victims of inundations taken care of by the framework	-	25,000	155,912	300,000	13,761	
Number of vulnerable households supported by the cash transfer system	18,716	178,800	130,000	42,370	55,585	73,292
Support distributed through cash transfers (thousand CFAF)	40,000	38,000	11,569,945	4,260,110	4,553,500	3,879,290
Number of vulnerable households supported by the cash for work system	42,978	167,233	228,613	36,770	67,674	261,165
Support distributed through the cash for work system (thousand CFAF)	2,965,482	28,182,055	23,172,505	14,292,529	4,703,712	25,547,979
Support distributed through the food for work system (thousand CFAF)	21,150,463	17,757,427	11,264,779	7,218,285	2,542,176	879,389
Quantity of livestock food sold at moderate prices (tons)	5,000	21,462	12,173	21,325	13,050	40,000
Number of households benefitting from the free distribution of grain	14,804	142,511	220,686	214,413	154,101	271,189
Quantity of grain distributed free (tons)	32,791	107,358	47,181	72,294	50,788	81,357
Number of households benefitting from the sale of grain at moderate prices	-	164,757	463,547	199,658	228,470	192,147
Quantity of grain sold at moderate prices (tonnes)	64,810	131,640	45,936	82,320	63 585,35	87,516
Memorandum item : Cash transfers in percent of GDP	0.8	1.3	1.2	0.6	0.3	0.7

Source: DNGPCCA

Source: Nigerien authorities.

13. Looking forward, efforts should focus more on strengthening resilience to disasters. Government policies so far have mainly centered on emergency actions aimed at supporting populations exposed to natural disasters. While these actions have been effective in addressing emergency situations, they should be supported by investing in programs aimed at sustainably reducing vulnerability to disasters over the medium- to long-term. In particular, there is a need to adopt a strategic framework dedicated to post-disaster recovery. Government responses to disasters and food crises have focused more on addressing urgencies associated with humanitarian needs. Actions aimed at post-disaster sustainability have received less emphasis; to correct this situation, the government is working on how to connect humanitarian-early recovery and development, with the help of the UNDP.[8]

14. Over recent years, the government has taken initiatives that go beyond answers to urgencies to tackle issues related to population resilience to food and nutritional insecurity and disasters. One program expected to play a central role is the 3N (Nigeriens Nourish Nigeriens) Initiative piloted by the High Commission for the 3N Initiative established in 2011, under the President of the Republic. In addition to proposing appropriate responses to emergencies, the

[7] Greater synergies between the PSPV and OCHA's Humanitarian Response Plan would be useful.

[8] At the UN World Humanitarian Summit that took place in Istanbul on May 23-24, the President asked the international community to complement Niger's current institutional framework for crisis prevention and management by setting up a national emergency fund that would help respond rapidly to humanitarian crises.

Initiative provides a strategic investment framework for food security and resilience to crises, with the aim of addressing the fundamental causes of food and nutritional insecurity and economic precariousness of vulnerable populations. In particular, policies under Axis 3 aim at strengthening the capacity of populations to respond to crises largely by addressing underlying agro-pastoral production gaps, through irrigation, mechanization, improved seeds and fertilizers, soil rehabilitation, dam construction, and the development downstream activities. In this regard, the increase in rehabilitated soil from 88,872 ha in 2011 to 254,536 ha in 2015 and in irrigated areas from 85,000 ha in 2011 to 120,000 ha in 2015 helped strengthen agriculture resilience. This is in line with the national strategy for 2014-18 to reduce risks of natural disasters (SNRRC). The strategy is supported by the OECD in the context of a regional initiative "Global Alliance for Resilience Initiatives" ("AGIR"), which aims at reducing in a structural and durable way food and nutritional vulnerability in the Sahel and West Africa. With the support of the United Nations Development Program (UNDP), the national disaster risk reduction strategy (SNRRC) is being revised in conformity with the UN Sendai Framework (2015-30) for Disaster Risk Reduction adopted in 2015.

E. Concluding Remarks

15. Niger faces large and increasing number of natural disasters, essentially droughts and floods, which heighten population and economic vulnerabilities, thereby complicating poverty reduction efforts. The government has responded by implementing a strong framework for crisis prevention and management, which has benefited from the coordinated support of the donor community. This framework has proven also to be effective in containing disasters risks and contributed to the achievements to stable price level, and thus to maintaining a macro-framework. However, though the contingent financing plan under the framework has helped alleviate the suffering of populations, it has largely focused on addressing emergencies, with less emphasis on prevention, and post-disaster recovery and sustainability.

16. The reduced variability of agriculture growth and food inflation over recent years shows the effectiveness of the risk management framework, but more needs to be done going forward. In particular, in spite of the support received from donors (UN agencies, bilateral and NGOs) resources and skills in decentralized communities (communes) are inadequate to efficiently implement the EWS. Also, while Niger has a good experience in risk assessment, detection, monitoring and prediction with regard to locusts and droughts, such a system lacks for floods, which continue to cause significant damages. In this regard, the current hazard analysis and mapping needs to be supplemented by a vulnerability analysis and a mapping of the main assets at risk, and spatial flooding risk analysis and assessment should be extended to other highly exposed areas including the city of Niamey. With donor support, including the recently signed Millennium Corporation Niger compact, the government should pursue efforts underway to strengthen resilience to disasters through increased irrigation and soil retention, in the context of a full-fledged national strategy of disaster prevention and management.

17. In this regard, the existing framework could be improved. Improvement could be done through streamlining and reducing possible redundancies between the DNPGCCA, 3N Initiative and the HADM Ministry, by strengthening the current early warning systems, by forbidding construction

in flood-prone zones, by improving the collection and dissemination of information by the early warning system, and by strengthening regional cooperation. These issues, together with the one of the sustainability of the donor-funded contingency financing plans, should be addressed under the national disaster risk reduction strategy (SNRRC) under revision. Sustained progress in disaster risk reduction will be instrumental in reaching Sustainable Development Goals (SDG) and in ensuring that the government meets fiscal and macroeconomic objectives under the new ECF program.

References

Adamou, Harouna Yayé. 2016. « Le programme Stratégique de Résilience Climatique – PSRC : « L'adaptation au changement climatique est possible », Le Sahel Dimanche, No. 1699, page 23.

Cellule de coordination du système d'alerte précoce et de prévention des catastrophes, CC/SAP/PC. 2016. « Plan d'action pour la mise en œuvre de la stratégie de réduction des risques de catastrophe, 2016-2020 », République du Niger.

Dawson, Thomas C. 2005, "IMF is combatting Niger famine", Letter to the Editor, The Independent.

Dispositif National de Prévention et de Gestion des Catastrophes et Crises Alimentaires (DNPGCCA). 2016. « Plans de soutien aux populations vulnérables, 2011-2016 », République du Niger.

Food and Agriculture Organization (FAO). 2008. Recensement général de l'agriculture et du cheptel (RGAC), Rome.

Haut-Commissariat à l'Initiative 3N. 2015. Priorités Résilience Pays : AGIR-Niger, République du Niger.

International Monetary Fund (IMF). 2015. "Global Value Chains: Where Are You? The Missing Link in Sub-Saharan Africa's Trade Integration". Chapter 3. Regional Economic Outlook: Sub-Saharan Africa, Washington, DC.

International Monetary Fund (IMF). 2015. "How Can Sub-Saharan Africa Harness the Demographic Dividend". Chapter 2. Regional Economic Outlook: Sub-Saharan Africa, Washington, DC.

Le journal de l'Institut de Recherche pour le Développement (IRD). 2012. « Activités humaines et inondations au Niger », Sciences au Sud, No. 66.

Mesplé-Somps, Sandrine. 2012 « Invasions de criquets : un impact durable, Fiche d'actualité scientifique », l'Institut de Recherche pour le Développement (IRD), No. 411.

Pan African News Agency (PANAPRESS). 2004. « Menace d'invasion de criquets pèlerins au Niger ».

Stratégie nationale de réduction des risques de catastrophe, 2016-2020, Avril 2016, Cellule de coordination du système d'alerte précoce et de prévention des catastrophes, CC/SAP/PC, République du Niger.

United Nations Development Program (UNDP) and Dispositif National de Prévention et de Gestion des Catastrophes et Crises Alimentaires (DNPGCCA). 2016. « Analyse approfondie de la situation du relèvement post- catastrophe au Niger », study undertaken under financing by Japan and Luxembourg.

United Nations Development Program (UNDP). 2016. Plan de réponse humanitaire 2016 du Niger.

United Nations Office for Disaster Risk Reduction (DESINVENTAR, UNISDR). 2016. Geneva.

United Nations University, Institute for Environment and Human Security. 2015. World Risk Report, 2015.

World Bank. 2013. « Evaluation des risques du secteur agricole au Niger : De la réaction aux crises à la gestion des risques à long terme », Technical Assistance Report 74322-NE.

World Food Program (WFP). 2012. « Plan d'action pour la gestion des risques au Niger 2012-2014 », Rome.

GENDER INEQUALITY IN NIGER

In addition to being a human rights imperative, gender inequality entails a major loss of national income and is therefore a major economic policy issue. Poverty and social norms are at the source of much of Niger's gender inequality, which raises delicate questions for public policy. Nevertheless, in recent years, women empowerment is being given increased priority by Niger's governments and women welfare indicators are improving, thereby contributing to the achievements of the strategic goals defined under the Programme de Développement Economique et Social (PDES), the Millennium Development Goals, and the macro-critical objectives under the Extended Credit Facility.

A. Gender Inequality Indicators

1. Niger is among the most poverty-stricken countries in the world with most of its population facing difficult living conditions, which are even more difficult for women. The country ranked last of 188 countries in the UNDP's 2014 Human Development Index (HDI) and next-to-last in its component sub-Index of Gender Inequity (GII) that covers 155 countries (UNDP, 2015).[1] There is an inherent correlation between the two indexes, but Niger's bottom-of-the scale position (behind war-torn Yemen only) in the GII reflects also long-established cultural biases that aggravate with gender-specific barriers the general poverty handicaps holding back Nigerien women.

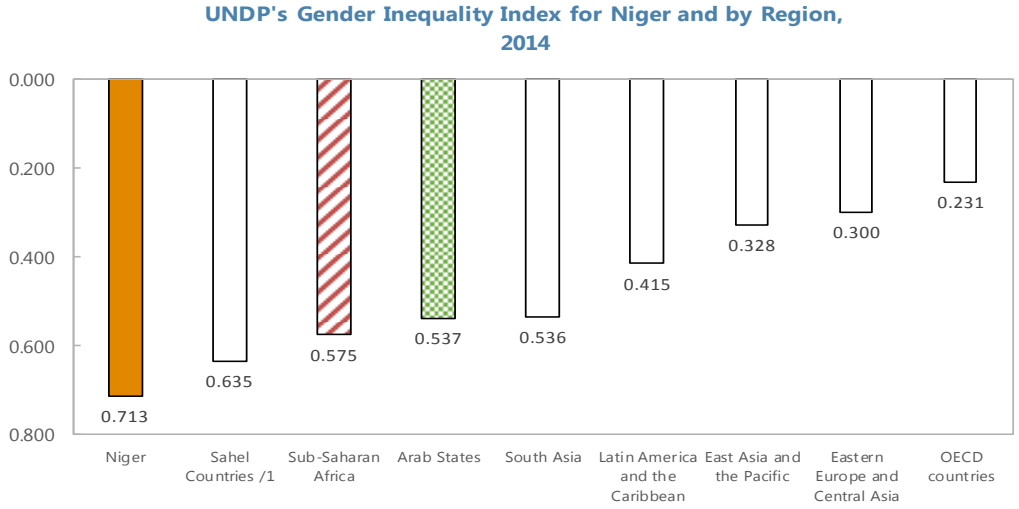
2. Niger's GII score indicates women are more than twice worse-off their already deprived male counterparts when it comes to opportunities to improve their income and social conditions (Figure 1). This is exemplified by secondary school attendance, which only 2.4 percent of Nigerien women achieved compared with 7.8 percent of the men (UNESCO, 2016). The disparity also occurs at higher levels of education, with considerably fewer women in decision-making positions in government (minimum quotas are in place) and in business positions.

3. In relative GII terms, Niger's trails not only the Sub-Saharan Africa average by a considerable distance, but also the average for a group of its Sahel neighbors with similar economic and cultural backgrounds. The other regions of the world show significantly lower levels of gender inequality than Niger, with the exception of the Arab countries where much higher-incomes are not reflected in better GIIs such as observed in non-Arab countries with comparable incomes. This is a first indication that some of the religious and cultural conditions that Arab countries share with Niger may be major factors in terms of gender inequity, as supported by statistical evidence presented below.

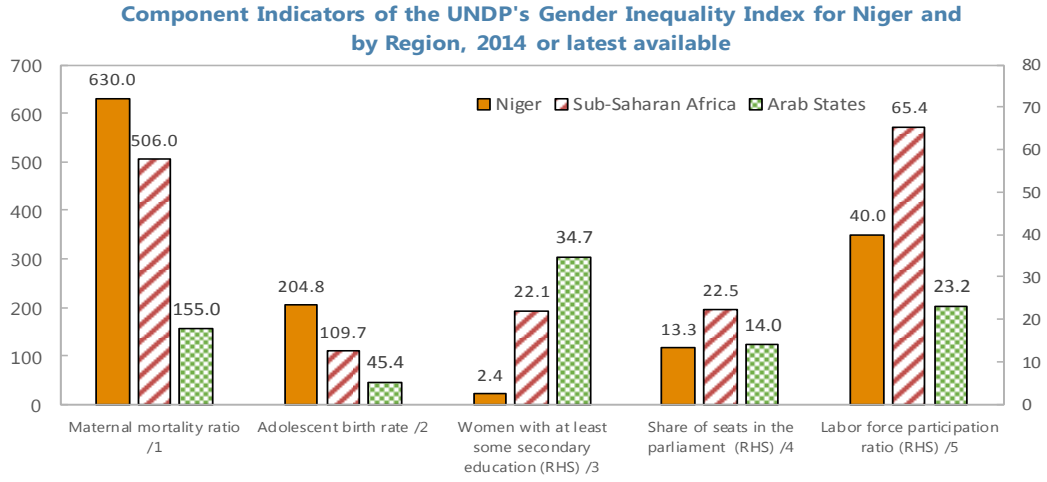
[1] The Gender Inequality Index (GII) is an index for measurement of gender disparity introduced in 2010 by the United Nations Development Programme (UNDP). It is a tri-dimensional (reproductive health, empowerment, and labor participation) composite measure which captures the loss of achievement within a country due to gender inequality. The GII ranges between 0 to 1, with 0 being full equality between men and women. and 1 maximum inequality. There exists an alternative Global Gender Gap Index (GGGI) computed since 2006 by the World Development Forum for several countries, but Niger is not among them. The African Development Bank also computes a Gender Equality Index (GEI) that largely mirrors the UNDP's GII.

4. The life-long handicaps underscoring the GII imply that gender inequality is a critical policy issue. The GII is a tridimensional composite index that takes into account women's reproductive health, empowerment, and labor market participation. The indicators used by the UNDP to measure these criteria also show Niger trailing for every single one of them. Moreover, the fact that they are early life indicators, such as girls' school enrollment and teenage pregnancy, implies lifelong handicaps that will extend Niger's high gender inequality scores well into the future even if prospects improve for younger generations of girls.

Figure 1. Niger: Indicators of Gender Equality and Regional Comparators, latest available data



1/ Unweighted average score for Sahel Countries for which the index is available: Burkina Faso, Chad, The Gambia, Mali, Mauritania, Niger, Senegal, and Sudan.

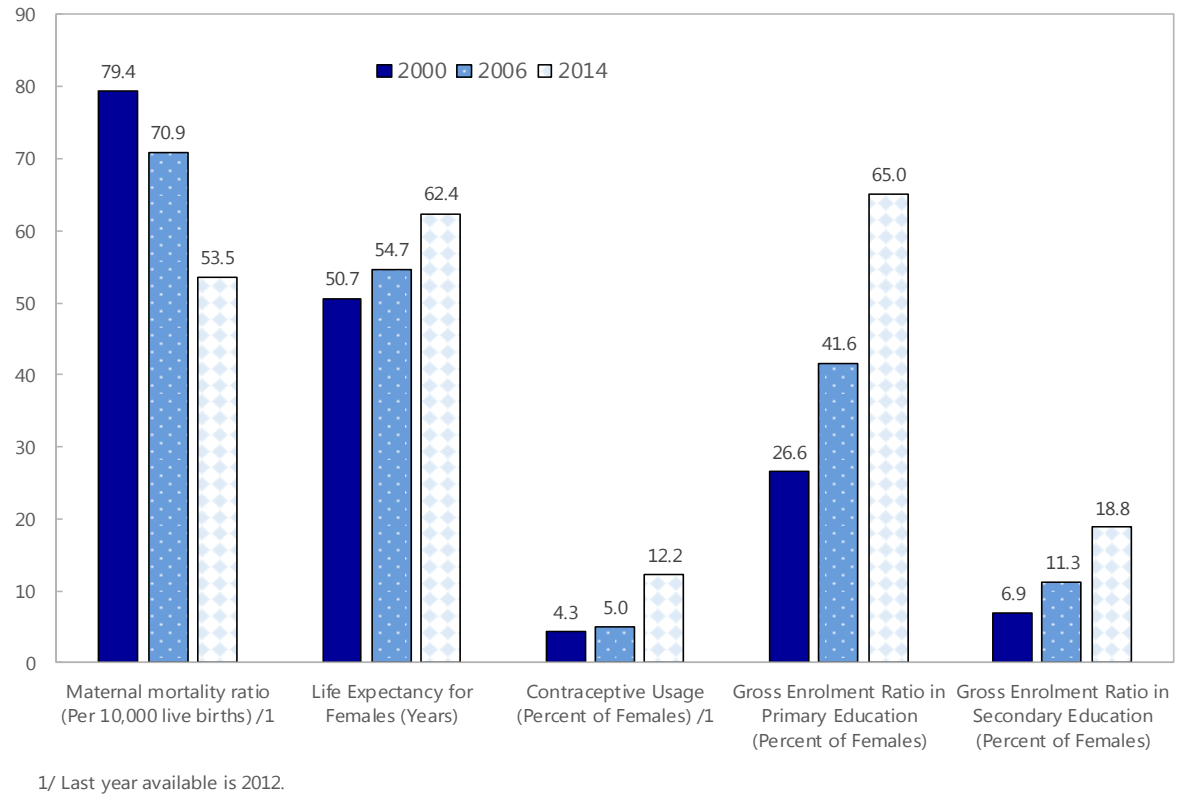


1/ deaths per 100,000 live births (2013)
2/ births per 1,000 women ages 15-19 (2010/2014)
3/ % females, ages 25 and older (2005-2014)
4/ % held by females (2014)
5/ % females, ages 15 and older (2013)

Source: United Nations Development Program (UNDP, 2016).

5. There are encouraging signs for Nigerien women that both human development and gender equity indicators have been steadily improving in Niger since the launching of the Millennium Development Goals (MDG) Initiative in 2000 (Figure 2). Coming from very low-levels, such indicators have improved across the board over the last two decades, including women welfare-specific indicators such as female life expectancy, labor force participation, maternal mortality, and girls' school enrollment. The improvements have come hand-in-hand with rising incomes in Niger, greater affordability of imported goods, and access to knowledge disseminating technology (cellphones, television, and the Internet) all of which have increased women's material welfare levels and opportunities for self-empowerment. It is particularly encouraging that the younger generation of girls have much better chances of going to school than their mothers and grandmothers (WEF, 2012).

Figure 2. Niger: Improving Gender Equality Indicators, 2000-14



1/ Last year available is 2012.

Source: World Development Indicators 2016, World Bank.

B. Social Institutions

6. As elsewhere in the world, social institutions are a prime source of gender inequality in Niger, where engrained cultural traditions keep in place social handicaps against women that have long been overcome in more modern societies. While there is not a pronounced pre-birth "son bias" in Niger, discrimination starts during the school years when boys' education is given priority over girls'. Later in life, Niger's socio-cultural barriers may further curtail a woman's access to justice, self-empowerment and major personal life-choices like marriage or child-bearing. As a result, much human potential is wasted hindering social transformation and economic growth that would benefit both women and men.

7. Niger also ranks at the bottom of the OECD Social Institutions and Gender Index (SIGI), which seeks to measure discrimination against women by social institutions (formal and informal laws, social norms, and practices) across 160 countries (OECD, 2016).[2] In 2014, Niger ranked in the 153rd position, ahead only of 6 other predominantly Islamic countries (Somalia, Chad, Mali, Gambia, Sudan, and Yemen) and of Zambia (that scored worse-in-the-world in terms of women property rights).

8. In regional terms, Niger trailed considerably the Sub-Saharan Africa average both in terms of the SIGI index and each of its components (Figure 3). It is important to note that the practice of female genital excision weighs heavily on the index, which is why Niger, where the percentage of excised girls is estimated at a relatively-low 20 percent, ranked just behind Egypt and ahead of the six other wealthier countries indicated above where the practice is more widespread.

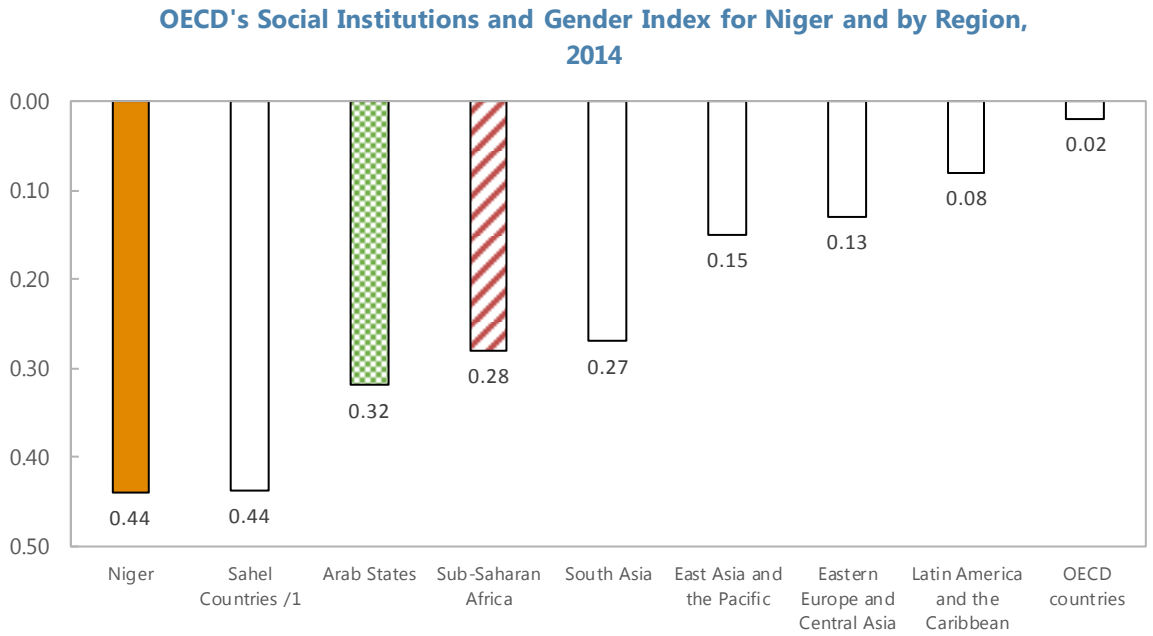
9. The SIGI average for Sub-Saharan Africa was better than for the Arab States (of North Africa and the Middle East) notwithstanding the latter's much higher level of income (OECD, 2014). Niger also scored better than the average of the Arab States in two of the SIGI subcomponents (son bias and restricted civil liberties, in regards to which Niger does not gender-differentiate as much as in Arab States).

10. Niger, however, scored worse-in-the-world in terms of the "Discriminatory family Code" component of the SIGI Index. This was due to the fact that a form of female slavery persists in Niger despite decades of calls for its abolition (Timidria, 2013). It concerns so called "fifth wives" who are very young girls sold off into sexual and household slavery (Box 1). Only a small percentage of Nigerien women are subject to this form of slavery, but its persistence and nature is sufficient to rank Niger at the bottom of the SIGI's "family code gender discrimination" component. Despite

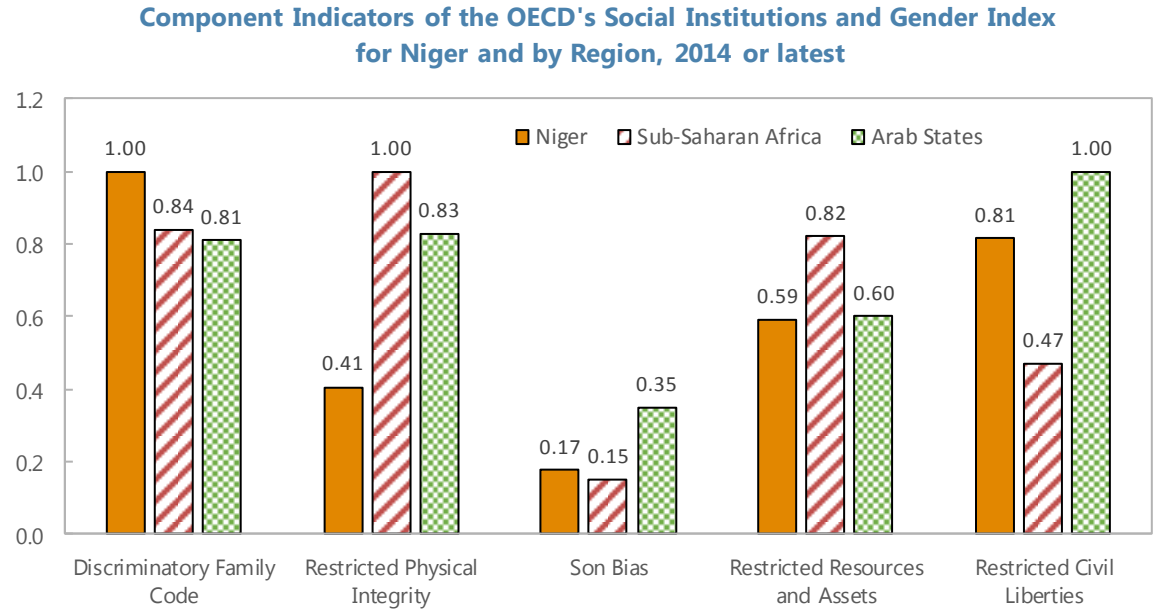
[2] The SIGI covers five dimensions of discriminatory social institutions, spanning major socio-economic areas that affect women's lives: discriminatory family code, restricted physical integrity, son bias, restricted resources and assets, and restricted civil liberties. The SIGI's variables quantify discriminatory social institutions such as unequal inheritance rights, early marriage, violence against women, and unequal land and property rights. Through its 160 country profiles, country classifications and unique database, the SIGI provides the criteria to more effectively address the discriminatory social institutions that hold back progress on gender equality and women's empowerment.

some recent legal victories in combatting the "fifth wife" tradition, it is likely to remain a major handicap in terms of Niger's SIGI score for the foreseeable future.

Figure 3. Niger: Indicators of Gender Discriminating Social Institutions and Regional Comparators, latest available data



1/ Unweighted average of scores for Sahel Countries for which the index is available: Burkina Faso, Chad, The Gambia, Guinea, Mali, Mauritania, Niger and Sudan



Source: Organization for Economic Co-operation and Development (OECD, 2016).

11. While female slavery is not allowed in Niger's laws, other less extreme forms of gender-discrimination are. According to the United Nations Economic Commission for Africa (UNECA, 2016), Niger's Family Code safeguards customary practices that are highly disadvantageous for women as regards divorce, child custody and inheritance. Polygamy remains authorized as does instant repudiation of wives. At government level, the civil service code (*Statut Général de la Fonction Publique*) precludes discrimination, but it is nevertheless institutionalized at the agency level (*Statuts Particuliers*) where regulations prevent women from working at certain institutions and positions (often to avoid mingling with men).

Box 1. Niger's "Wahaya" Fifth Wife Tradition: An Extreme Form of Gender Oppression

In Niger's mid-country Tahoua region a socially-accepted form of slavery persists whereby girls of a disfavored ethnicity are enslaved by older men of another ethnicity as a sign of prestige. These girls are known as "*wahayou*" (singular: *wahaya*), which means "fifth wives" in reference to Islam's prohibition on men having more than four wives but (arguably) no limit on the number of enslaved additional "wives." The *wahaya* tradition is also practiced in neighboring northern Nigeria, where in 2014 the *Boko Haram* terrorist group kidnapped 276 schoolgirls, many of whom have since been confirmed to have been forced to become *wahayou*.

Association Timidria, a local Niger associate of *Anti-Slavery International*, estimated in 2012 the number of people living in slavery in Niger at 130,000, most of whom were *wahayou* and their children. It reported that 83 percent of the *wahayou* were purchased before turning 15, most between the ages of 9 and 11 years old, at prices ranging from FCFA 200,000-400,000 (US$350-700). Once purchased, a pubescent *wahaya* will be subject to sexual and domestic slavery by her master and his legitimate wives and children.

Despite slavery having been officially abolished in Niger in 1961, contemporary acceptance of the *wahaya* institution is underscored by the social reality that it is the most prestigious men in their communities (usually traditional chiefs and religious leaders) who seek and retain "fifth wives." The alleged religious fundament of this tradition has served to resist calls for its abolition as heretic and alien-imposed. A more recent variant of the wahaya slavery, according to the 2015 US Department of State report on Trafficking in Persons, has entailed Nigerien girls reportedly being sent abroad to enter into "marriages" with Nigerien men or foreign nationals and being subjected to domestic servitude in some Gulf and other countries.

But there is also fierce opposition to *wahaya* slavery in Niger itself. Anti-slavery advocacy and litigation by Nigerien civil society groups like *Timidria* have succeeded in bringing social and legal condemnation to *wahayou* slave holders and to the state of Niger, which in 2008 was found guilty of abetting slavery by the Community Court of Justice of the Economic Community of West African States (ECOWAS), that has human rights jurisdiction across member countries, and sentenced Niger to pay compensation to a former *wahaya*. In 2014, for the first time ever, a Nigerien court convicted a man and sentenced him to four years in jail for taking and mistreating his "fifth wife." Such legal victories have been too few but they are an auspicious sign that social acceptance of the centuries-old *wahaya* institution is eroding in Niger. But, regrettably, not soon enough for the women still enslaved as *wahayou*.

12. Progress in addressing legally-enshrined gender-discrimination has been slow. While Niger has ratified the Convention on the Elimination of all forms of Discrimination Against Women (CEDAW) more than 10 years ago, it has done so with numerous reservations. Furthermore, as of 2016, Niger had still not ratified the Protocol to the African Charter on Human and Peoples' Rights

on the Rights of Women in Africa (*Maputo Protocol*, of which Niger was a signatory in 2003). However, some landmark legislation has been passed: the 2006 *Reproductive Health Act* aimed at improving access to birth control and sexual healthcare; and the 2000 *law on quotas for women in political life*, increasing the percentage of women in parliament from 1.2 percent (1 woman out of 83 members of parliament) in 1999 to 16 percent (28 women out of 171 members of parliament) after the 2016 elections. This share meets the 10 percent minimum envisaged in the law but the share of women in the Cabinet —18 percent— falls short of the 25 percent (currently out of 44 ministers, only 8 are women).

13. Looking ahead, hope for more opportunities for Nigerien women can be derived from the growing social awareness that comes with higher income levels and more education, for both men and women. Already the OECD-monitored SIGI indicators show signs of improving slightly, although not as fast as human development indicators, which underscores the lingering resistance to changing long-established social institutions and cultural traditions. Such resistance poses an ever present risk that what little gains have been achieved in recent years could be reversed.

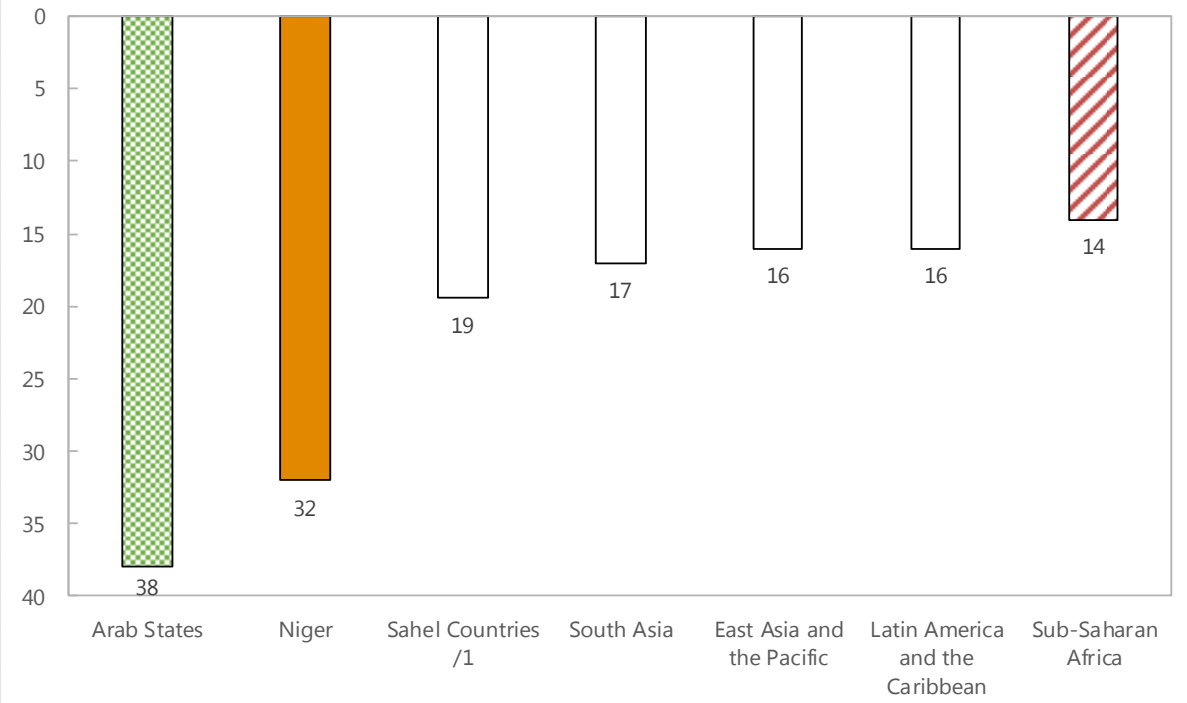
C. The Economic Cost of Gender-Inequity in Niger

14. Gender inequity in labor force participation has very real economic costs in terms of the wasted contributions of women. Discrimination and social institutions that restrict women's contribution to the workforce by limiting their employment choices and that force them into household roles result in what has become known as "gender gaps in labour force participation." Such gaps lead to a loss of income by standard national accounting measures since household chores and family caring are not counted towards GDP. The magnitude of the income losses has to be estimated relative to a higher level of potential output that can potentially be even higher if the opportunity costs of women's educational handicaps are taken into account (Hall and Jones, 1999).

15. For Niger the income loss associated with its gender gap was estimated in 2015 to be a very significant 32 percent of GDP (OECD, 2016; Cuberes and Teignier, 2015). According to the sources of this estimate, it was the highest level of income losses among Sub-Saharan African countries and it was comparable only to levels recorded in Middle East and North Africa countries, where, as we have seen, women face comparable institutional and cultural barriers to self-empowerment. According to Hakura et al. (2016), who did not make specific estimates for Niger, per capita income growth in sub-Saharan Africa could be higher by as much as 0.9 percentage points annually on average if inequality was reduced to the levels observed in the fast-growing emerging Asian countries. Such estimates of potential GDP gains mean for Niger that narrowing the gender gap might well be the most effective step it could take to improve economic activity and reduce poverty.

Figure 4. Niger: Income Losses Associated with Gender Gaps in Labor Participation

(Percent, 2015)



1/ Unweighted average scores for Sahel Countries for which the index is available: Burkina Faso, Chad, Mail, Niger, and Senegal.

Source: Organization for Economic Co-operation and Development (OECD, 2015).

D. Promoting Gender-Equality in the Context of Recent Government Programs

16. Policies to address gender-inequality in Niger have been a recurrent feature of recent government programs, especially those supported by donors. This was the case of the 2012-16 ECF-supported program that was underpinned by a poverty reduction and strategy paper (PRSP) for 2012-15 (*Plan de Development Économique et Social-PDES*) that identified "promotion of gender equality rights" as a national priority. The PDES acknowledged not just the unfairness of Niger's status quo for women, but also the significant opportunity costs for the country as a whole in terms of the wasted potential contribution of women to national income generation and overall social welfare.

17. Niger's PDES envisaged two gender-inequity reduction areas—women's rights and women's opportunities—with 10 explicit objectives through its original implementation horizon of 2012-15. These objectives were considered overwhelmingly accomplished in the government's *2016 PDES Implementation Report* that highlighted the successful conclusion of several public education initiatives on gender issues; the distribution of household equipment (water pumps, sewing machines, grinders, donkeys and chariots) to make women's chores less harsh; leadership training for 8,703 women with technical qualifications, and special lines of credit for small

businesswomen. It also stipulated quotas for women in public offices of 10-15 percent for elected positions and 25-30 percent for appointed positions, which are being barely met. Some progress was also reported in making legislation and social services less discriminating against women.

18. The Economic Guidelines Document *(Document d'Orientations Economiques*—EDD) that succeeded the PDES also set priorities in the area of gender-equality. It seeks to consolidate progress made in improving women's access to education and health services, legal reforms, and with public education efforts on the merits of empowering women. The full strategy will only be available in March 2017 and will be intertwined with that for containing Niger's high demographic growth rate, which is another highly sensitive area for public policy that is closely linked to gender equity promotion.

19. Gender equality is also being pursued in the context of sectoral strategies, such as the *National Financial Inclusion Strategy* approved in 2015. The thrust of the strategy is to make credit available to Nigeriens excluded from the financial circuit, with women being explicitly given priority, especially in rural areas or those running small individual businesses with potential for expansion.

20. The World Bank and other donors are assisting with women empowerment and the new ECF arrangement lends support to these initiatives. The World Bank has an important regional initiative: The *Sahel Women's Empowerment and Demographic Dividend Project* (2014-19) that was officially launched in Niamey and targets for Niger US$ 53.5 million of the total US$ 170 million available. Bilateral donors and NGOs are also active in Niger with smaller scale programs to empower women in selected areas. The government in its MEFP for the Fund's ECF-supported program for 2017-19 takes note of these initiatives and sets goals towards their implementation.

E. Conclusion and Policy Considerations

21. Nigerien women are doubly hindered by the country's extreme poverty and long-established social institutions. Despite recent progress in improving gender-specific indicators, such progress has been slow and the indicators remain lagging behind the peers', which means even the next generation will continue to face major obstacles to their self-empowerment.

22. Against such background, affirmative policies to empower women in Niger will necessarily face hurdles and Nigerien ownership is paramount to their success. It is of the utmost importance that women empowerment policies be designed and advocated in a persuasive manner that leaves as little room as possible for detractors to generate broader resistance. Recent governments have shown leadership in putting gender-equality on Niger's policy agenda, but more needs to be done to substantially improve opportunities for today's women in their lifetimes.

23. Addressing gender inequity in Niger is not only compelling for social reasons, it also makes economic sense. The potential gains to GDP are high and self-sustaining, which means that combatting gender inequity has to be at the center of any credible poverty reduction efforts. It is also closely intertwined with moderating demographic growth to levels where investments in health and education can be boosted on a per-child basis.

24. As elsewhere, Niger's policy choices should be carefully designed to reduce inequality and further women empowerment in their specific context. According to a survey of Sub-Saharan countries done at the IMF (2015), removing legal gender-based restrictions in the region could immediately boost growth and reduce inequality by enabling women to participate more fully in economic activities and own assets. To that effect, fiscal policies should aim at making tax systems more progressive, prioritizing expenditures on women's health and education, and at providing safety nets for single mothers, widows and other women vulnerable to exclusion. Financial sector and labor market policies should be aimed at strengthening legal, regulatory, and institutional frameworks that support women's ability to participate fully and productively in economic activities.

25. The international community can play an important role in assisting with women empowerment, but should be mindful that its efforts do not become counterproductive. While reducing gender inequity will take money and knowledge resources that only Niger's development partners may provide, such assistance will have to be dispensed tactfully as not to appear an external imposition that could give pretext for resisting change. Overcoming Niger's long-held legal and cultural biases is something only Nigeriens themselves can do.

References

David Cuberes and Marc Teignier. 2016."Aggregate Effects of Gender Gaps in the Labor Market: A Quantitative Estimate," *Journal of Human Capital* 10, 1: 1-32.

Hakura, Dalia, Mumtaz Hussain, Monique Newiak, Vimal Thakoor, and Fan Yang. 2016. "Inequality, Gender Gaps and Economic Growth: Comparative Evidence for Sub-Saharan Africa", IMF Working Paper WP 16/111, International Monetary Fund, Washington DC.

Hall, Robert E., and Charles I. Jones. 1999. "Why Do Some Countries Produce So Much More Output Per Worker Than Others?". The Quarterly Journal of Economics, 114, 1: 83-116.

International Monetary Fund (IMF). 2015. "Inequality and Economic Outcomes in Sub-Saharan Africa." IMF Regional Economic Outlook: Sub-Saharan Africa, International Monetary Fund, Washington, DC.

Organisation for Economic Co-operation and Development (OECD). 2014. Social Institutions & Gender Index (SIGI), 2014 Synthesis Report, OECD, Paris.

OECD. 2016. Sub-Saharan Africa (SIGI), 2016 Regional Report, OECD, Paris.

Timidria, Anti-Slavery International. 2013. "WAHAYA Domestic and sexual slavery in Niger. A report by Galy Kadir Abdelkader and Moussa Zangaou. 10 Personal Stories," Niamey.

United Nations Economic Commission for Africa (UNECA). "African Women's Rights Observatory, Niger factsheet" http://www1.uneca.org/awro/CountrySpecificInformationNiger.aspx

United Nations Development Program (UNDP). 2015. Human Development Report, United Nations, New York.

United Nations Scientific, Educational and Cultural Organization (UNESCO). 2016. "Tackling Gender Inequalities in Niger's Educational System. Project achievements and recommendations", UNESCO, Paris.

World Economic Forum (WEF). 2012. *The Global Gender Gap Report*, a jointly publication of Harvard University and the University of California, Berkeley. World Economic Forum, Geneva.

HARNESSING THE DEMOGRAPHIC DIVIDEND IN NIGER: OPPORTUNITIES AND CHALLENGES

Accelerating and managing the demographic transition through the promotion of a strong and sustainable growth environment is critical to harness the demographic dividend, but also to achieve the macro-critical objectives of a financial program in Niger supported by the Extended Credit Facility. Niger hosts the fastest growing population in the world, with the highest fertility rate and a significant decline in the mortality rate. These demographic trends set Niger's window of demographic dividend to open, but very slowly, after 2020 and could last beyond 2100. To make the best of that opportunity, and manage the adverse economic and social side of a fast growing population, policymakers should sustain macroeconomic stability for the basis of an environment conducive to the development of the private sector. Through the policies aimed at managing the course to the demographic dividend, they should also build resilience to exogenous shocks, create the needed fiscal space to invest in education, health services, and construct infrastructures that are supportive to private sector development.

A. Introduction

1. Demographic dividend is generally apprehended into two frameworks (Ronald Lee and Andrew Mason, 2006). The first: changes in the age structure of the population following the decline of the fertility and child mortality rates could be translated into a window of opportunity for rapid growth in income per capita and poverty reduction. A declining fertility rate reduces the child dependency burden and increases the share of the population that work and save, allowing resources to be reallocated to building infrastructure and investing in research and development and human capital such as education and health. Also, low fertility could increase women's work participation rate contributing to higher national income. This dividend could last several decades, but as the population ages, the burden of the elderly dependency reduces the growth in income per capita and eventually it could turn negative. The second: in the absence of strong government's support policies for the older generation and an intergenerational income transfer, the working population facing a longer retirement period is incentivized to save assets. Those assets have the potential of raising income per capita and boosting economic performance leading to a sustainable development.

2. Niger fits into the former model. Like other sub-Saharan African (SSA) countries, Niger's most formidable economic asset could soon be its people. As Niger's demographics change, the country could enjoy significant growth if policies are tailored to tap into this potential (Thakoor and Wakeman-Lin, Finance & Development March 2016). The country has the fastest growing population in the world with a very small share of population aged over 65 years old. If the country is able to reduce significantly its fertility rate, there will be an opportunity to benefit from the first type of democratic dividend provided that the right policies are applied. However, given the effects that rapid population growth could have on poverty dynamics and development needs, Niger could face serious macroeconomic challenges in the absence of proper integration of demographic issues in the policy framework. This is so important going forward because in recent years spending to mitigate security and climatic shocks has diverted limited resources. This note analyzes the demographic transition in

Niger and its challenges and identifies policies that could contribute to transforming the potential of its fast growing population into an opportunity to boost its economy. To that end, this paper analyzes the demographic transition in Niger, and its potential impact on the economy, and discusses the policies the country could undertake.

B. Population Dynamics in Niger

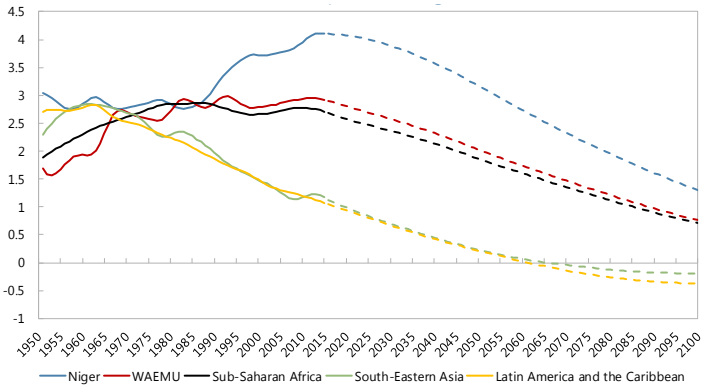
3. Niger is at the early stage of its demographic transition. Niger is at the early stage of its demographic transition with a rapid decline in mortality and a still too high fertility, fueling rapid population growth that is less urbanized with a median age of less than 15 years old.

Population Growth

4. Niger is experiencing high population growth. It could become in the near future the most populous country in the WAEMU. Niger's population growth has been increasing, from less than 3 percent per annum in the 80's to 4.11 percent in 2015 (Figure1). The population was estimated at 19.9 million in 2015, the second most populous country in the WAEMU (after Côte d'Ivoire, 22.7 million). The UN projects Niger's population to double by 2034 and to surpass Côte d'Ivoire's in 2024 and accounts for 19.3 percent of the WAEMU population. By 2050, Niger will account for a quarter of the WAEMU population and 3.4 percent of the SSA population, putting a lot of pressure on the government to meet the growing needs in terms of basic infrastructure and social services. The large decline in child mortality rate while fertility rate was increasing to the highest level in the world explains this recent surge in the population growth.

Figure 1. Niger: Population Growth Estimates and Projections, 1950-2100

(Annual percentage change)



Source: UN population prospects.

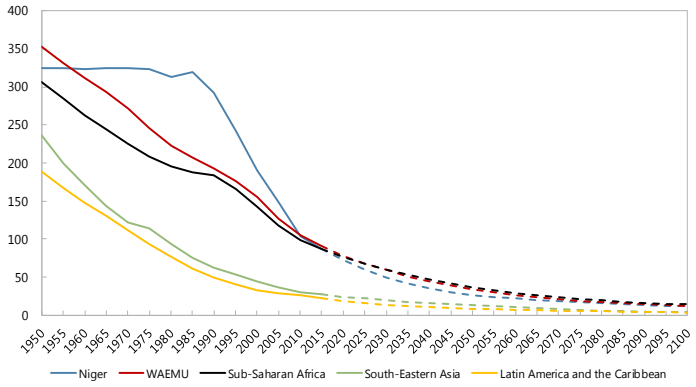
5. For the next decades, this demographic momentum would continue to maintain a high population growth. In the authorities' views informed by current policies, the population growth will decelerate faster than projected by international institutions. Nevertheless, regardless of government's potential commendable population policies to reduce the fertility rate, current demographics dynamics (large share of the young population—51 percent of total population is between 0-14 years of age in 2015—entering their reproductive period in the next years) is a harbinger for more births and population growth in the years to come. Thus, the situation calls for a global strategy to contain fertility and create jobs for a growing population and associated needs for services in health, education, sanitation, and employment.

Mortality Transition

6. Niger is about to achieve the first step of the demographic transition as witnessed by the recent rapid decline in the mortality rate. Before 1985, unlike the trend observed in other regions in the world, including SSA, the under-5 mortality rate in Niger stabilized at a very high level of 319 per 1,000 children. However, since 1985, the mortality rate has been declining sharply to about 87 per 1,000 children in 2015, catching up with WAEMU and SSA's average mortality rates (Figure 2). Two main factors could explain this reduction in child mortality: (i) the improved standards of living including increased access to clean water, sanitation, and better quality of food; (ii) the increasing access to health care, the higher outreach of vaccine, child nutrition supplement programs, and increased access to treatment for common diseases (e.g. malaria). Besides, the government donor-supported humanitarian programs, consisting of distributing free or subsidized foods and cereals, have helped, during climatic shocks, to mitigate the risk of hunger that exposes many children to death. Consequently, life expectancy has improved by more than 20 years during that period going from 42.7 years in 1985 to 62.8 years in 2015.

Figure 2. Niger: Under-5 Mortality Rate, 1950-2100

(0-5 years, average deaths per 1,000 births)



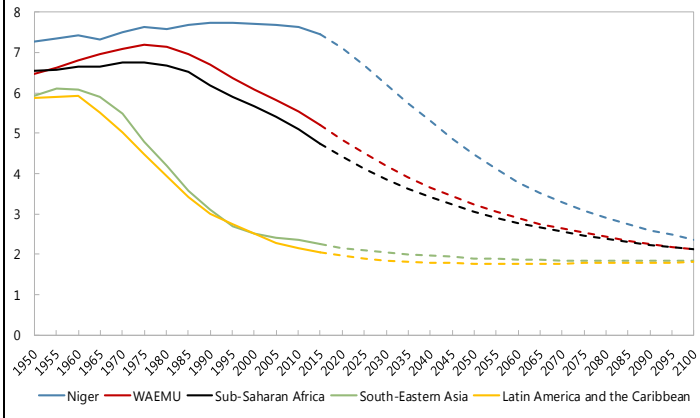
Source: UN population prospects.

Fertility Transition

7. In contrast, the second step of the demographic transition is yet to materialize, as Niger remains the country with the highest fertility rate in the world. Niger's fertility rate has been increasing, reaching its highest in 2005 at 7.8 children per woman, also the highest fertility rate in the world (Figure 3). In 2016 the fertility rate is projected at 7.6 children per woman, still more than 2.7 children above the average for SSA and more than 5 children above the averages of Latin America and the Caribbean, and the South-East Asia regions that are very advanced in their demographic transition. The UN projects a gradual fertility decline in Niger but the rate would still remain at 4.5 children in 2050. The determinants of high fertility in Niger, according to the 2012 survey on demography and health in Niger, are related to deep cultural roots, notably to: (i)

Figure 3. Niger: Total Fertility Rate, 1950-2100

(Average number of children per woman)



Source: UN population prospects.

religion/polygamy as most women are stuck in polygamous relationships, more children, notable boys, help secure large share of inheritance, (ii) working in the informal trade and agriculture sector; (iii) lacking education or holding only a primary school diploma; (iv) not using a modern contraceptive (the contraceptive prevalence in Niger was only 15 percent in 2015 compared to 76 percent in Mauritius);[1] (v) being married at an early age providing longer maternal period—adolescent birth rate, age between 15-19, is 210 births for 1,000 women compared to 31 births per 1,000 women in Mauritius, also 89 percent of women between the age 15-24 are married before 18 years old—. Most of those factors are linked to some extent and could be addressed by fostering women education (holding them longer at school), extending health services to rural areas, and implementing policies that promote women empowerment.

Immigration

8. Immigration is relatively low in Niger, despite Niger being part of the gateway through Libya to Europe, and remittances are limited. Nigerien migrants could easily follow the movement to access Europe through Libya or other parts of the world. Such cross-border movements, like births and deaths, are another channel through which demographic transition could materialize, because of its impact on the size and the structure of the population. According to the International Organization for Migration (IOM), only 1.8 percent of Nigeriens were living outside their country in 2015 with the majority located in Benin, Togo, and Nigeria. Migrants to North America and Europe are mostly students that decided to remain in their host countries after completing their studies. The country's ratio of net migration is -0.3 emigrant per 1,000 people, very small compared to similar countries, like Mali with -2.1 emigrant per 1,000 people.

Urbanization

9. Although Niger's urban population is growing at 5.4 percent a year in 2015, due largely to rural exodus and/or rural areas growing to cities, the pace is still lagging behind peers. Growing at a rate of 1 percentage point higher than the total population growth, the urban population in Niger represents about 18.7 percent of the total population, compared to more than 50 percent in Ghana, and 80 percent in Latin America, the most urbanized developing region in the world. If rapid urbanization is argued to benefit a country by creating large pools of labor and markets for selling goods and services, it ironically poses serious challenges in terms of crime, poverty, youth unemployment, congestions of roads, and provision of housing and public services such as education, health, and sanitation all of which have implications on both the population and total factor productivity. In the case of Niger, survey data suggest that urban areas have lower poverty rates (10.2 percent in Niamey compared to 48.9 percent at the national level), better access to health and education services, and lower fertility rate (5.6 children per woman against 8.1 children per woman in rural areas, INS 2012). Urban areas also suffer more from unemployment estimated at

[1] Mauritius is one of the SSA country that is advanced in its demographic transition and was able to benefit from its demographic dividend.

24.5 percent compared to 15.6 percent in rural areas. As of 2014, 70.1 percent of the Niger's population live in slums highlighting the need for housing.

Age Structure

10. The age structure displays less of a transformation and is expected to remain almost the same beyond 2050. The age structure in Niger is expected to remain pyramidal until beyond 2050, dominated by the youth (under 15 years old) with a low share of elderly people (Figure 4). Half of Niger's population was under 15 years of age in 2015; this would only drop to 43.9 percent in 2050 due to the projected slow decline in the fertility rate (Table 1). This would translate into a moderate decline in the dependency ratio going from 113 percent in 2015 to 86.7 percent in 2050. Niger dependency ratio in 2050 will exceed the averages for SSA and other regions (Latin America and Asia) by 25 and 32 percentage points, respectively. This high dependency ratio suggests that Nigerien workers will have to support more unemployed. Giving the low income earned by workers in Niger compared to other regions in the world, this will leave little room for saving and providing good quality life and strong education to their dependents.

Table 1. Niger: Age Structure of the Population, 1950, 2015 and 2050

	Niger			SSA	SEA	LA&C
	1950	2015	2050	2050	2050	2050
Population below 15	49.5	50.5	43.9	33.5	19.5	17.1
Population between 15-24	19.5	17.9	20.4	18.8	13.3	12.2
Population between 15-64	49.6	47.0	53.5	61.6	64.9	63.4
Population 65 and over	0.9	2.6	2.6	4.9	15.6	19.5
Median age	15.2	14.8	17.8	23.7	37.6	41.2
Total dependency ratio	101.6	113.0	86.8	62.4	54.1	57.8

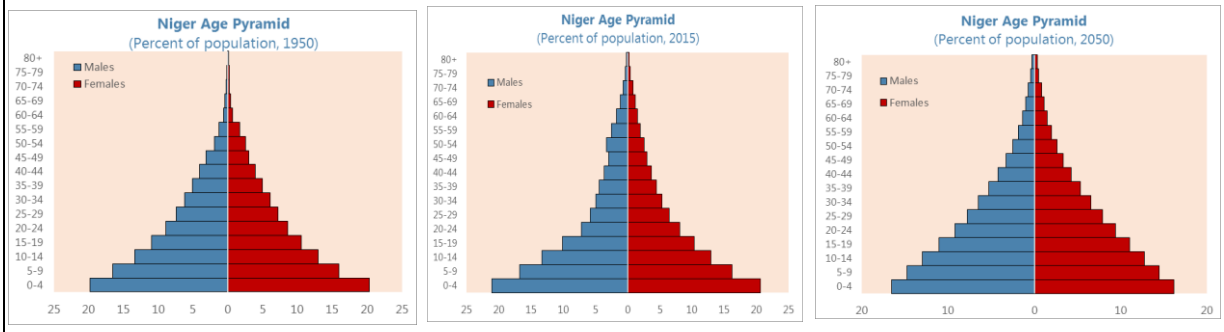
Source: UN population prospects.

11. The share of the working age population (SWAP) would be just over 50 percent in 2050 and the country could enter its "bulge of youth". The SWAP in Niger should increase from 47 percent in 2015 to 53.5 percent in 2050, about 10 percentage points below the projected levels of the average of South East Asia and Latin America and the Caribbean (Table 1). By 2050, the population age between 15-24 will reach 20 percent, a situation described as the "bulge of youth". This may cause disruptive political and social movements, if the government fails to meet their increasing demands for education, health, and employment. Furthermore, the rapid growth of youth could bring other social problems observed in some big cities in Africa and Latin America requiring more investment in security.

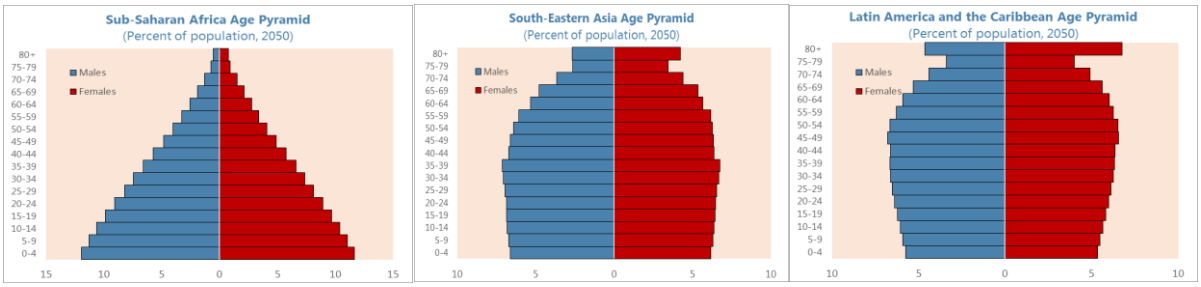
12. This age structure could have significant economic implications. In Niger, the political economy of demographics is complex. As the share of the young population is projected to decline to the benefit of increasing number of adults, there is a possibility of a rapid increase in incomes and savings in the society. However, income behavior will depend on the advance on job creation and the share of working age population employed as employment opportunities expand. Assuming

that earnings would exceed consumption, the economy would benefit from the increase in its SWAP. As in Niger, the projected age structure suggests less of a gain from the increase in its SWAP.

Figure 4. Niger: Population Age Pyramid in Niger and Some Regions in the World, 1950-2100



In 2050, SSA will still be at the middle of its demographic transition while South-East Asia and Latin America and Caribbean will have completed theirs as illustrated by the age pyramids below.



Sources: UN population prospects; and IMF staff calculations.

C. Demographic Transition: Opportunities and Challenges

The demographics trends in Niger presents opportunities over the long term, but important challenges will have to be addressed before harnessing the demographic dividend.

Opportunities from the Demographic Transition

13. There are many transmission channels through which the demographic transition could affect the Nigerien economy. Based on recent studies (Galor and Weil, 2000; Bloom and others, 2009; and Thakoor and al, 2016), four channels could be identified in the case of Niger: (i) the increase of the employable share of the working-age population coming from more women labor force participation following the decline in fertility; (ii) increase of overall saving coming from the increase share of working-age adult which tend to save more compared to other groups, providing the resources for investment to boot growth; (iii) people with fewer children and living longer tending to spend more on health care and education, hence contributing to more productive labor force; and (iv) a larger working population could lead to greater domestic demand and spur both local and foreign investment. We focus on the role of the reduction of the population growth and the increase of the share of the working age population.

Potential Gain from Lower Population Growth

14. Niger would benefit marginally from the reduction in its population growth, given the projected modest decline in population growth and the span of time.[2] In formula 1 (Footnote 2), assuming some level of parameters (δ=0.05 and α =1/3), the change of the Niger's population growth between 2015 and 2050 (35 years) going from 4.11 percent to 3.18 percent would generate a gain in GDP per capita of only 5.5 percent. From the current status to the projected one in 2100 (1.3 percent) would generate a gain of 20.25 percent. If Niger is able to accelerate the reduction of its population growth and also improve on other factors affecting positively the steady state level of GDP per capita namely total factor productivity and the saving rate, it could benefit more from its demographic transition.

Role of the Increase in the SWAP

15. In Niger, the window[3] of opportunity for demographic dividend from the increase in the SWAP is expected to start slowly between 2020 and 2025, and could last beyond 2100. In the past, Niger has experienced some episodes of increasing SWAP that were not sustained, as some were due to severe droughts that triggered hunger and deaths of children and big waves of emigration to neighboring countries. According to the UN projections, another window of opportunity to benefit a demographic dividend would open after 2020 that will last beyond 2100. However, the longer it takes for the SWAP to reach its peak, less the country could benefit from the demographic dividend. It took the Latin America countries 45 years and the South East Asian Countries 50 years to reach their maximum SWAP at around 67.5 percent and they enjoyed several-fold-increase in GDP per capita. While, for SSA it would take almost 100 years starting 1990 for the SWAP to reach its maximum estimated at a lower level (64.5 percent) and generating an increase in GDP per capita of about only 55 percent (IMF, 2015). However, the size of the dividend would be determined by how much people produce and consume at each age level. In the case of Niger, producers are between ages 30 and 65; and using the support ratio criterion,[4] Niger would enter

[2] The reduction of the population growth increases the steady state level of GDP per capita for a given rate of investment because of the reduction of the risk of capital dilution (Solo Model). Using the solo Model, David Weil (2005) estimated the steady state change in GDP per capita for different levels of population growth, holding everything else constant (the level of total factor productivity and the share of output that is invested) by the following:

$$\frac{Y_2}{Y_1} = \left(\frac{\delta + n_2}{n_1 + \delta}\right)^{\frac{\alpha}{1-\alpha}} \qquad \text{(Formula 1)}$$

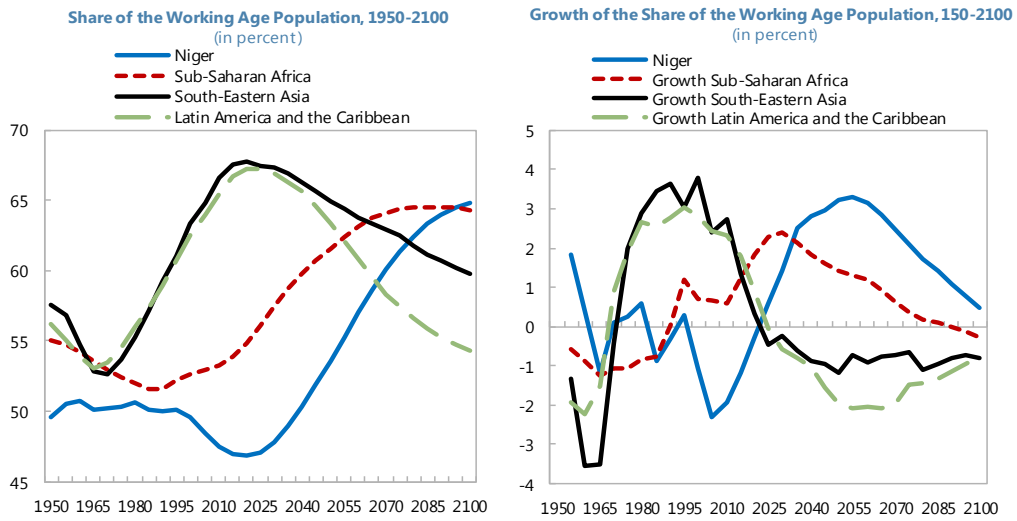
Where Y_1 is the steady state of the GDP per capita associated with the population growth n_1, Y_2 is the steady state of the GDP per capita associated with the population growth n_2, α is the elasticity of income with respect to capital, and δ the annual rate of capital depreciation.

[3] The window of opportunity to benefit from the first type of the demographic dividend starts when the SWAP start to increase consistently because of the reduction in both the fertility and death rates. It often lasts for a period of 50 years and end when SWAP start to decline because of an increasing share of elderly people which could allow the country start benefiting from the second demographic dividend, which lasts longer.

[4] To determine the window of opportunity for the demographic dividend, the National Transfer Account project uses the "support ratio" criterion defined as the ratio of the number of producers (earning more than what they consume) to the number of consumers which is often different from the SWAP.

into the window of opportunity after 2030, delaying the first estimate using the SWAP by about 10 years.

Figure 5. Niger: Share of Working Age Population (15 to 64 years old), 1950-2100



Sources: UN population prospects; and IMF staff calculations.

Challenges in Harnessing the Demographic Dividend

To harness the demographic dividend opportunity, a number of conditions should be met, along with right policies. In particular Niger should build resilience to address exposure to exogenous shocks, implement policies that create jobs for the growing youth, along with higher quality of education and expanding a better educated work force which could be more inclusive as women would be more represented.

16. Exposure to multiple shocks prevents Niger from achieving a strong and sustainable growth. An average economic growth rate of more than 7 percent a year is needed to reduce significantly poverty, which affects almost half of its population. Recently, though growth has been at a respectable rate, it was irregular growth in respect to heightened security and climatic shocks, and low commodity prices and spillover from the economic downturn in neighboring countries. Growth declined to 3.5 percent in 2015 after reaching 7 percent in 2014, and it is expected to be only at 4.6 percent in 2016. Projected at 6 percent, the medium term growth is driven by investment in the resource sector but would still be lower than what is needed to create jobs and reduce poverty.

17. The unemployment rate is very high in Niger, especially for women, with most workers employed in the informal sector. To enjoy the demographic dividend, the population of workers needs to be increased by creating more well paid jobs. The government is the main formal employer while more than 99 percent of the workforce is employed in the informal sector, which represents 64.8 percent of the economy (INS, 2015). In 2014, the participation rate was estimated at 64.7 percent and the unemployment rate at 17.4 percent, with a significant gender gap. The women participation rate is

only 40.7 percent (90.8 percent for male) and more than 20 percent of women are unemployed. Furthermore, a large number of workers, 34.6 percent, suffers from underemployment. This rate reaches 83.6 percent in rural areas because of the seasonal nature of their work.

18. Recent government policy has helped improve access to education but more needs to be done. Efforts should in particular focus on reducing the gender gap at all level of the education system. Scale up public investment in education and ensuring its efficiency is essential for improving productivity and achieving sustainable growth. The Asian tigers achieved their economic miracle by investing heavily in education and ensuring that it is tailored to producing the skills required for diversifying their economy. In Niger, public spending on education has increased from 3.9 percent of total spending in 2010 to 7.1 percent in 2014 before declining to 5.9 percent in 2015, with an increasing share of resources devoted to secondary and tertiary education. Consequently, the education indicators have improved at all levels but there are still a lot do. According to the World Development Indicators (WDI), in 2014, the net primary enrolment rate was 65.6 for male and 56.2 for female, and the net secondary enrollment was 18.6 for male and 12.6 for female. In contrast, net enrolment for tertiary education was lower at around 3 percent for male and 1 percent for female. Education quality remains low and higher education is not tailored to meeting the needs of the job markets. Most students study social sciences (including economics, literature, law) at the university with few student graduating in technical and engineering studies that are needed in an expanding economy.

19. The background paper on gender reports that, although improving, gender inequality in Niger is a major issue and entails major loss of income for the country. There are severe gender gaps in Niger in terms of employment and education mainly at the high level of education as shown previously. Also Niger ranks 154 out of 155 (Yemen ranking last) in the Index of Gender Inequity. Some of this gender gaps are culturally entrenched making them difficult to eliminate. Since 2008, the government has a national policy on gender equality which has helped set quotas for women at some high level positions (including at the National Assembly and the government). But there is a strong push-back from opinion leaders when it comes to passing women right protection laws. The government is advocating strongly at the local community level and toward the more moderate leaders to gain support to advance its gender agenda.

20. Challenging business environment and shallow financial systems are also to be addressed. The Niger's overall ranking in the doing business index has been improving in recent years but the country continues to lag behind in some components of the index (see the background note on the external stability assessment). Niger's ranking of ease of doing business went from 176th position in 2014 to 150th position in the 2017 doing business report, increasing by 26 notches. Niger went from being the worst business environment in the WAEMU excluding Guinea Bissau to being at the fourth best in WAEMU as the government has intensified reforms aimed at improving the business environment. However, Nigerien firms face more severe challenges than average WAEMU and SSA in paying taxes, getting electricity, and dealing with construction permits. Niger's financial sector, which is important in ensuring savings could translate into good and profitable investment, is still the shallowest in the WAEMU countries. As a result, limited access to credit is hampering strongly private sector initiative and development.

D. Policy Recommendations

Niger will experience in the next 5 to 15 years an increase in the share of the working age population, offering an opportunity to start capturing a demographic dividend, provided that adequate policies are designed and properly implemented. Specifically, Niger will need to implement the following policies in order to increase the potential gain from its demographic transition:

- **Putting in place policies to accelerate the demographic transition**. Such policies must concentrate in reducing the high fertility rate by increasing access to modern contraceptive methods, the reduction of social and cultural weight that contribute to the high fertility rate. The focus will be to invest in changing believes specially for the youths and men and reinforcing women empowerment through education, protecting their right, and providing them full access to the labor market. The regional project called "Women's Empowerment and the Demographic Dividend in the Sahel" (SWEDD) launched in late 2015 with a World Bank financing and a UNFPA technical support could help in that regard.

- **Promoting macroeconomic stability to build the foundation for a strong, sustainable and inclusive growth.** To that end, Niger should continue to build resilience to many of the shocks experienced recently. Improving revenue mobilization will be key as well as rationalizing spending, managing liquidity and debt, and planning medium-term expenditures. This would lay the ground for creating fiscal space, scaling investment, and addressing social needs.

- **Investing in human capital to enhance the productivity of the work force**. The government should ensure that resources are adequately allocated to the health and education sectors to build a healthy and skilled work force that is critical in improving total factor productivity. The policies should focus on improving the quality of education and access to secondary and tertiary education especially for women and ensuring that the education programs supply the skills required in the job market.

- **Achieving a sound economic and social structural transformation and creating jobs through more private sector contribution**. Policies should aim at improving the business environment and designing a tax system that is supportive to SMEs and to the transformation of the dominant informal sector into formal businesses. The 3N Initiative that would benefit from Millennium Challenge Corporation (MCC), could be scaled up to support a more productive and modern agriculture and the emergence of a labor-intense agro-industry. Policies could aim to a more flexible labor market coupled with retraining programs.

- **Increasing resource mobilization by leveraging revenue from the resource sector**. Resources generated from the resource sector should be invested in developing infrastructure including energy to reduce cost of doing business and enhance the country competiveness.

- **Taking advantage of regional integration to access a larger market and expand trade possibilities**. Niger is the neighbor of the most populated and the largest economy in Africa, Nigeria, which is also destination of most of its non-mining exports. Niger exports to Nigeria raw

agricultural products, cattle, and more recently refined oil products. The completion of the Niamey Cotonou rail road, should facilitate the country's access to the port and increase the flow of goods that transit in Niger toward the northern part of Nigeria. Building modern butcheries and canneries for both livestock and agriculture products would also improve the value-added on products that are exported to Nigeria, and hence, raise Niger's export earnings.

- **Developing the financial sector by implementing the recently adopted plans**. It is important to recognize the role that the financial sector could play in the policies aimed at benefiting from the demographic dividend, notably in term of mobilizing saving and ensuring credit flows efficiently to benefit the most profitable sectors. New technology with the mobile banking should also help mainly is arears where the economic justification to having a bank or micro-credit branch does not exist.

References

Aiyar, Shekhar and Ashoka Mody. 2011. "The Demographic Dividend: Evidence from the Indian States", IMF Working Paper WP 11/38, International Monetary Fund, Washington DC.

Anarfi, John K. and Stephen O. Kwankye (RIPS, University of Ghana, Legon). "Harnessing Ghana's demographic dividend: opportunities and challenges" http://uaps2015.princeton.edu/uploads/150893

Centre de Recherche en Economie et finance Appliquée de Thiès (CREFAT). 2014. "Harnessing Demographic Dividend in Senegal", Policy Brief N° 7.

Ding Ding, Lam, W. Raphael, and Shanaka J. Peiris. 2014. "Future of Asia's Finance: How Can it Meet Challenges of Demographic Change and Infrastructure Needs?", IMF Working Paper WP 14/126, International Monetary Fund, Washington DC.

Drummond, Paulo, Thakoor, Vimal, and Shu Yu. 2014. "Africa Rising: Harnessing the Demographic Dividend". IMF Working Paper WP 14/143, International Monetary Fund, Washington DC.

International Monetary Fund (IMF). 2006. Finance and Development, Back to Basics "What is the Demographic Dividend", Volume 43, N° 3, Washington, DC.

International Monetary Fund (IMF). 2015. Regional Economic Outlook, Sub-Saharan Africa Navigating Headwinds, Ch. 2: "How Can Sub-Saharan Africa Harness the Demographic Dividend?", Washington, DC.

International Monetary Fund (IMF). 2016. Finance & Development "The Big Squeeze: Global Population Pressures", 53. Washington, DC.

National Population Council. 2014. "Ghana's Demographic Transition: The Demographic Dividend," Policy Brief N° II.

Weil, David N. 2012. "Economic Growth" (3rd Edition), Brown University.

Yoon, John-Won, Kim, Jinill, and Jungjin Lee. 2014. "Impact of Demographic Changes on Inflation and the Macroeconomy". IMF Working Paper WP 14/210, International Monetary Fund, Washington DC.

Links to data sources:

http://data.worldbank.org/
http://www.indexmundi.com/niger/
https://www.iom.int/countries/niger
http://www.unfpa.org/world-population-dashboard
https://esa.un.org/unpd/wpp