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BURKINA FASO

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BURKINA FASO

SELECTED ISSUES

June 18, 2014

Approved By
The African Department

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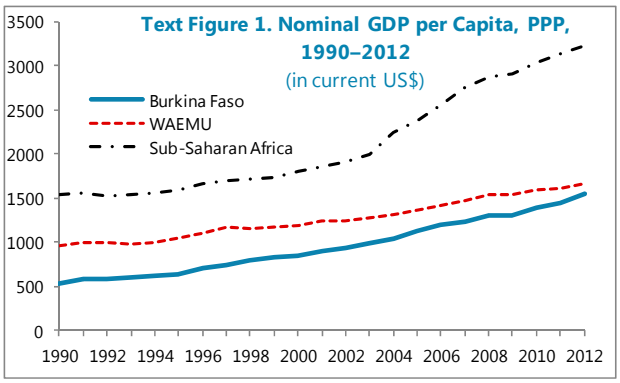
INCLUSIVE GROWTH IN BURKINA FASO[1]

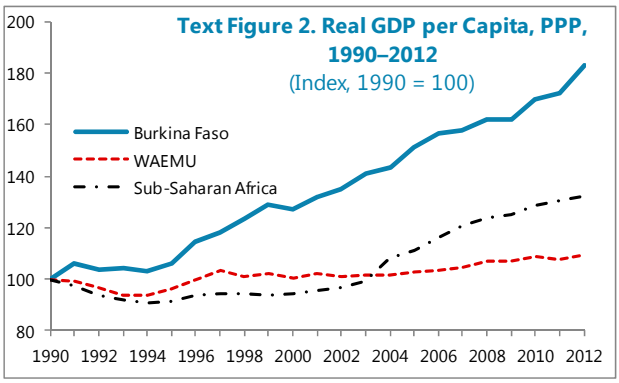
Burkina Faso has experienced sustained economic growth between 1990 and 2013. Indeed, growth became more robust and more resilient to chocks, resulting in the economy growing faster than regional standards. However, the perception within the country is that the population hasn't really benefited from this strong performance and that growth was not inclusive. Indicators show that results are actually mitigated. The improvements can be attributed to the authorities' numerous measures on the matter but there are still some identified constraints that must be resolved in order to truly tackle the problem of poverty in the country.

A. Growth in Burkina Faso

1. Burkina Faso has experienced sustained growth in the past decade. Although this is true for many countries in the region, Burkina Faso is one of the few non resource-rich low-income countries that have been able to achieve high growth over a long period. The Regional Economic Outlook for Sub-Saharan Africa of October 2013[2] identifies several key characteristics common to these countries–Burkina Faso, Ethiopia, Mozambique, Rwanda, Tanzania, and Uganda–improved macroeconomic management, stronger institutions, increased aid, and higher investment in human and physical capital.

2. Burkina Faso's growth per capita has been more robust than regional standards, but the level of nominal GDP per capita is still below WAEMU and Sub-Saharan Africa. Nominal GDP per capita increased steadily over the past two decades, and is catching up with WAEMU average ($1554 versus $1663 in 2012, PPP adjusted). In real terms, the GDP per capita PPP adjusted has increased significantly, surpassing WAEMU and Sub-Saharan African real GDP per capita growth (Text Figures 1 and 2).





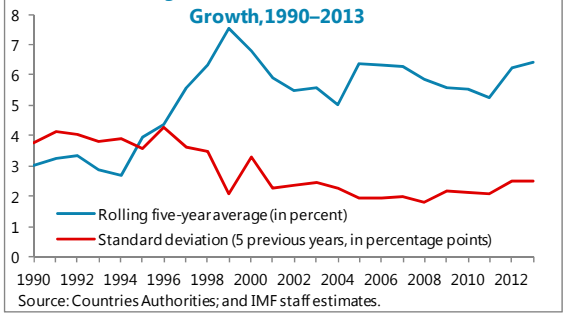
Source: World Bank, World Development Indicators, 2014.

[1] Primary contributor was David Corvino, with contributions from Laure Redifer and Jean-Baptiste Le Hen.

[2] Regional Economic Outlook, Sub-Saharan Africa, October 2013, Keeping the Pace, IMF.

3. Real GDP growth averaged 5.9 percent between 2000 and 2013. Between 1990 and 2013, real growth has become more sustainable and less volatile (Text Figure 3). The five-year average went from 3.0 to 6.4. During the same time, the standard deviation of the five previous years declined steadily from 3.8 to 2.5 percent, demonstrating a decline of the volatility of growth. The resilience against weather shocks is the result of investment in irrigation technologies as well as the increased use of genetically modified cotton seeds. Also, the primary sector share of real GDP has declined from 33.7 in 1995 to 28.0 percent in 2013, decreasing the impact of primary sector shocks on the total activity.

Text Figure 3. Burkina Faso: Real GDP Growth,1990–2013



Source: Countries Authorities; and IMF staff estimates.

4. Despite the emergence of industrial gold production, the share of the secondary sector to real GDP has remained constant since 1995, at about 20 percent, reflecting the lack of capacity to generate higher value added activities. The sector is mainly driven by industry (food processing, textiles). The mining sector's share increased from 0.5 percent in 1995 to 4.3 percent in 2013. In order to better track sources of growth and structural transformation, the authorities are in the process of updating the base year to 2015, starting with a survey to better capture informal sector activity.

B. Inclusiveness of Growth in Burkina Faso

5. In Burkina Faso and among donors, the perception is that poverty reduction has been too slow. The authorities' official statistics measuring poverty incidence (defined as 20 US cents per day in 1994, growing to 60 cents in 2009) haven't improved since 1994, remaining around 45 percent. Urban poverty even increased during the period as the share of people living in urban areas almost doubled, from 14 percent in 1990 to 25 percent in 2009 (Table 1). The level of the authorities' poverty line has more than tripled over that period. Inflation-adjusted, the poverty line has almost doubled (from $0.6 per day to $1.1 per day) and is now comparable with the poverty line used by the Word Development Indicators.

Table 1. Burkina Faso: Selected Indicators, 1994–2009

	1994	1998	2003	2009
Total Poverty Incidence [1,2]	44.5	45.3	46.4	43.9
Rural Poverty [1,2]	51.0	51.0	52.3	50.7
Urban Poverty [1,2]	10.4	16.5	19.9	19.9
Poverty Gap [1]	13.9	13.7	15.6	14.4
Poverty Line (US$) [3]	75.2	123.2	142.5	230.1
Poverty Line (US$/day) [3]	0.2	0.3	0.4	0.6
Povery Line (US$/day at 2005 prices, PPP) [3,4]	0.6	0.8	0.8	1.1

Sources: Burkinabè authorities; and SCADD, 2012.

[1] Data calculated from household surveys.

[2] Share of population whose income is below the poverty line.

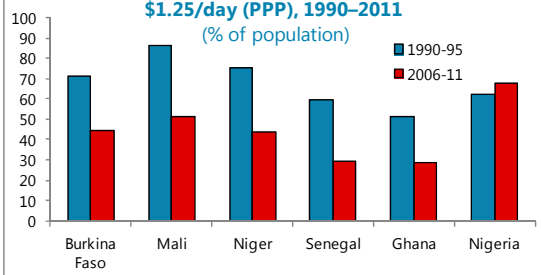
[3] Minimum income needed to satisfy food calorific needs and non-food basic needs.

[4] PPP conversion factor is the number of units of a country's currency required to buy the same amounts of goods and services in the domestic market as U.S. dollar would buy in the US.

6. The perception of a lack of inclusive growth in recent years has been exacerbated by a boom in gold production. Whereas cotton accounted for 80% of exports and gold production was non-existent a decade ago, gold now accounts for almost 80% of exports. However, its main channel of impact on the economy is fiscal revenues, but investment and spending capacity constraints have limited the extent to which these revenues have translated into additional development spending. Recent studies show that less than 10,000 Burkinabè work in the industrial mines, where they usually fill unskilled labor and low-wage positions. Foreign enterprises provide most of the services to the mines. Together, these factors have created a public perception that progress in reducing income poverty has been too slow, with the population at large excluded from the benefits of high growth and the gold sector boom.

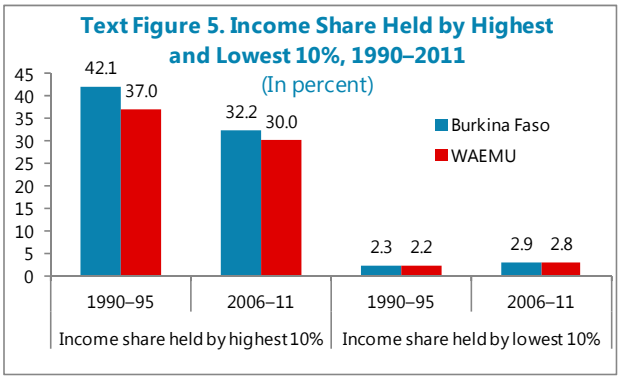
7. However, other indicators suggest a more mixed picture about inclusive growth in Burkina Faso. The World Bank's measure of the poverty headcount ratio demonstrates that the share of the population living under the $1.25 per day threshold, calculated at 2005 prices, was significantly reduced since the early 1990s, from 71.17 percent, to 44.6 percent in 2009 (Text Figure 4), on a par with other west African countries.

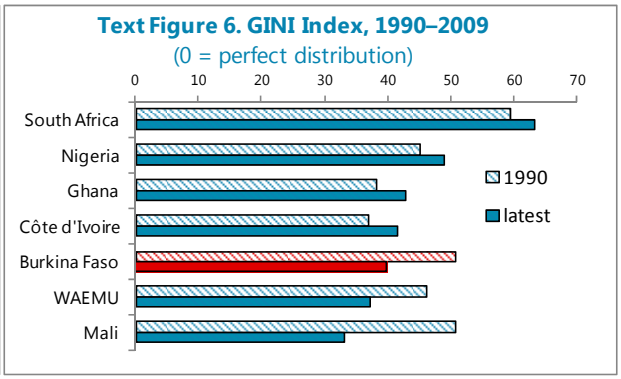
Text Figure 4. Poverty headcount ratio at $1.25/day (PPP), 1990–2011



Source: World Bank, World Development Indicators, 2014.

8. The income share held by the wealthiest 10% of the population has decreased since 1990. The income share held by the poorest 10% of the population increased slightly, but remained under 3% (Text Figure 5). These figures suggest that income gains have benefitted those in the middle. The GINI index supports the hypothesis of better wealth distribution, decreasing from 50.7 in 1990 to 39.8 in 2009. It remains higher than WAEMU average (Text Figure 6).

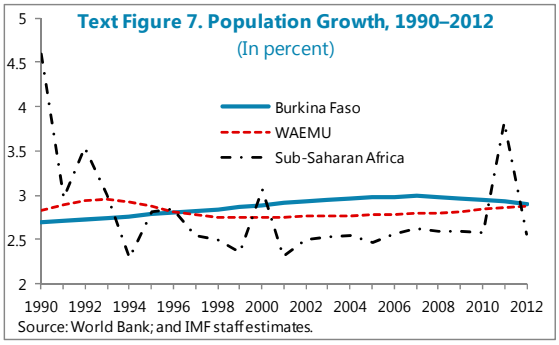




Source: World Bank, World Development Indicators, 2014.

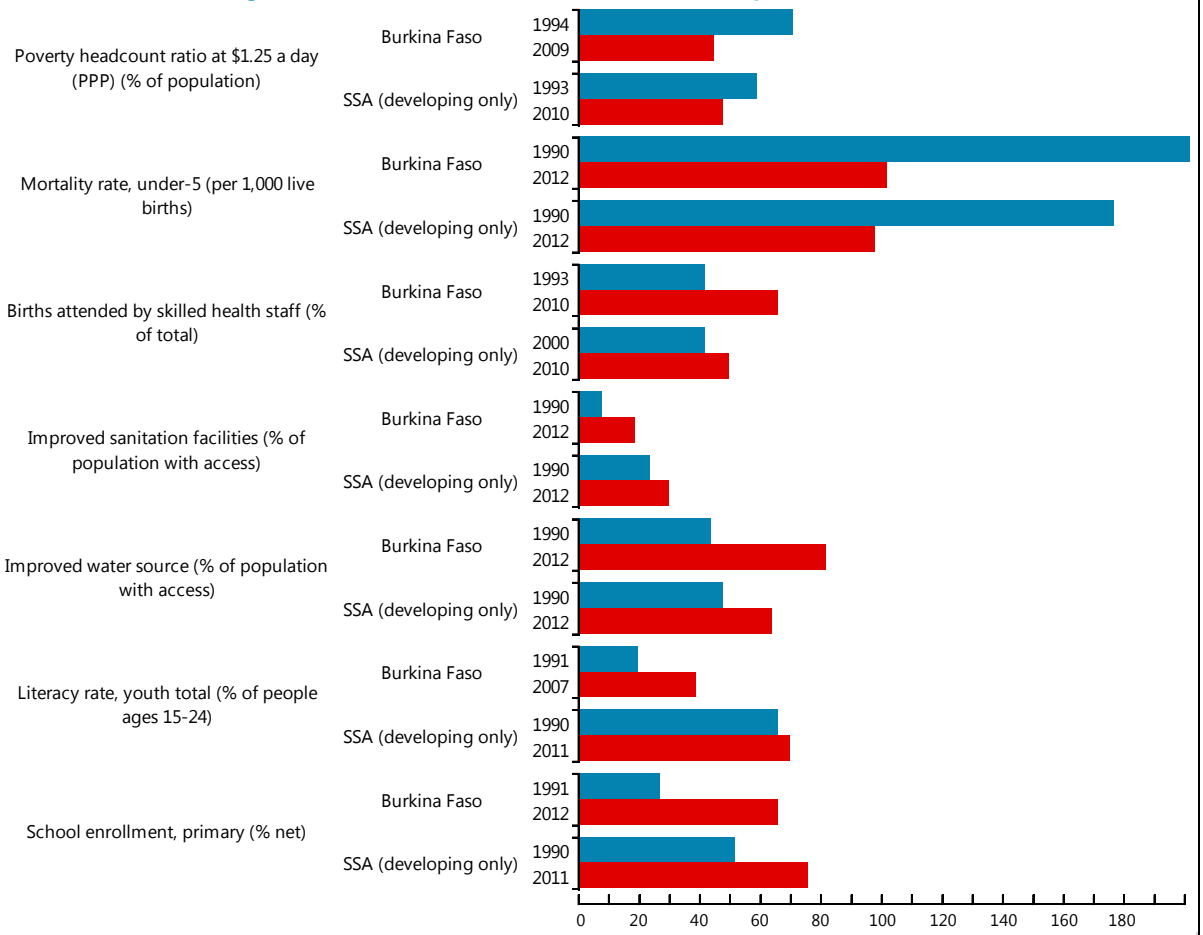
C. Social Indicators

9. Burkina Faso's population growth rate has been very high, around 3 percent. The population growth rate averaged 2.9 percent between 1990 and 2012, triggered by substantial decreases in mortality levels, while fertility levels remained constant (Text Figure 7). Mortality decreased owing to improvements in health care and services, as well as hygiene and sanitation. As a result, in 2006, 46.4 percent of the population was 14 years old or younger (SSA average, 43). Around two-thirds of the population was 25 or younger. The rapid demographic growth makes it more difficult to reduce income poverty ratios and puts further demand on public resources for social transfers. Moreover, the rapidly increasing population creates challenges for job creation and puts more pressure on the need for sustained high growth.



10. Despite rapid demographic growth, World Development Indicators show notable improvements in living conditions in the country. Besides the reduction of poverty headcount ratio described above, health-related indicators have shown good progress and have reached regional standards. However, education-related indicators have not progressed as well. Despite improvement, they remain lower than SSA averages and primary school enrollment is far from the 2015 target of 100 percent (Text Figure 8).

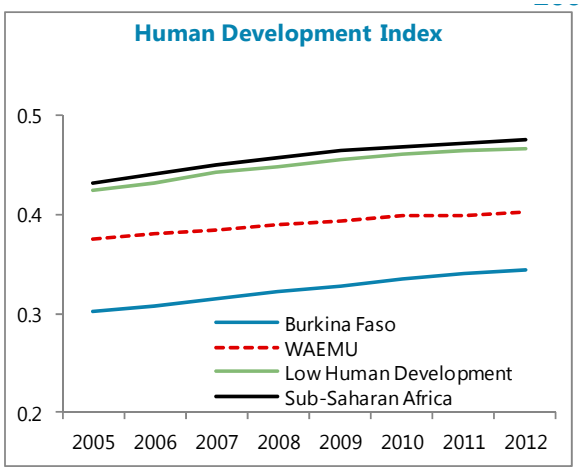
Text Figure 8. Burkina Faso: Selected Millenium Development Goals, 1990–2012

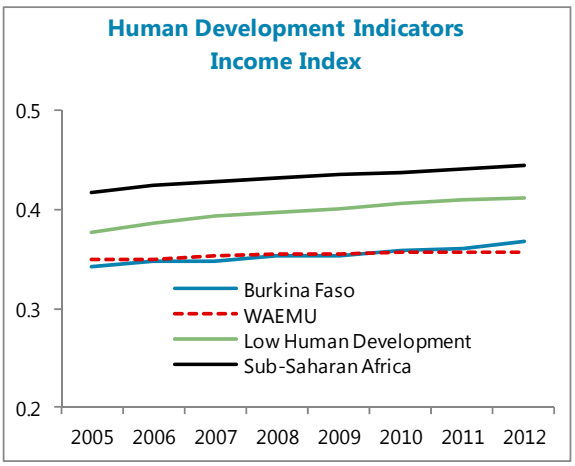


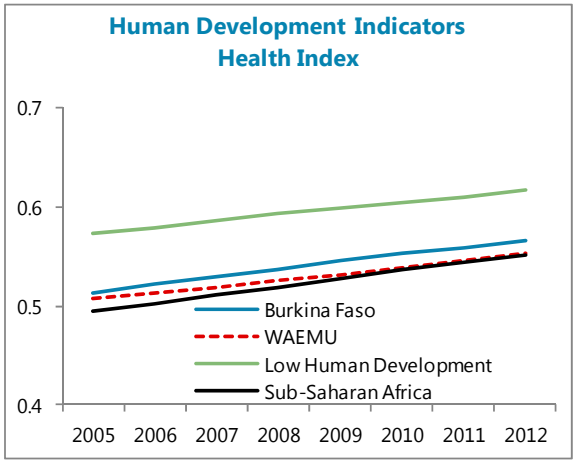
Source: World Bank, World Development Indicators, 2014.

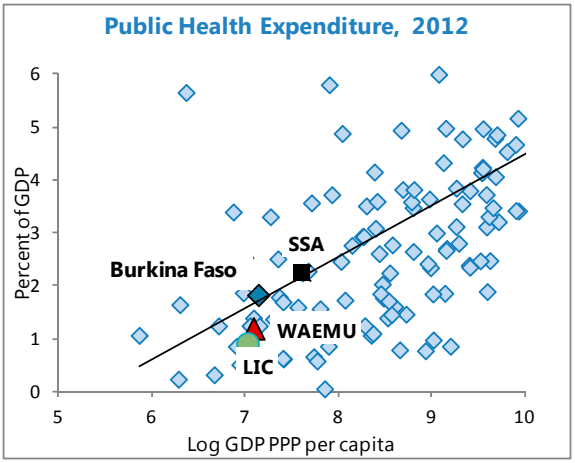
11. The country's Human Development Index (HDI) remained below regional standards (Figure 1). In health, Burkina Faso's specific HDI is higher than WAEMU and SSA averages, but below low-income countries (LICs). In terms of public expenditure in health, the country spends more in percent of GDP than both WAEMU and LIC averages. Again, education shows the least pronounced progress, and spending is below WAEMU and SSA averages.

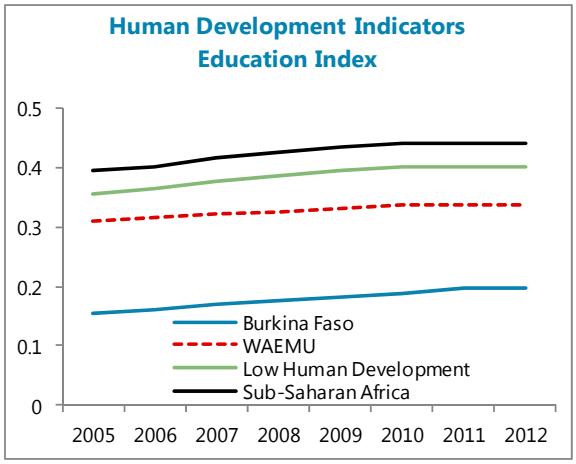
Figure 1. Burkina Faso: Human Development Indicators and Public Expenditure, 2005–12

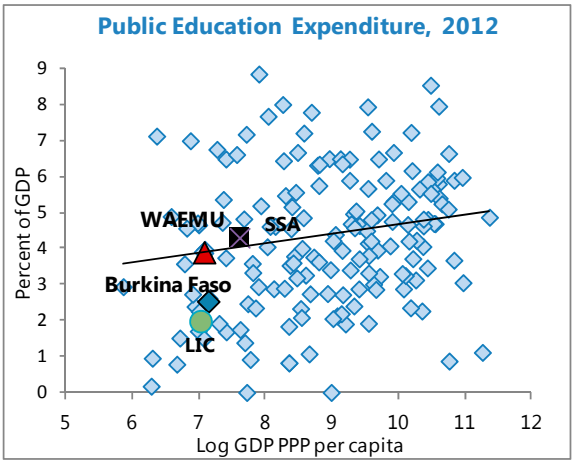












Source: Human Development Indicators, 2013 and FAD Health and Education Dataset.

D. Measures to Make Growth More Inclusive

12. The progress in poverty reduction and growth inclusiveness has been supported by numerous measures and projects undertaken by the Burkinabè authorities. The strategy for accelerated growth and durable development (SCADD) is a framework of measures aiming at reducing poverty while insuring economic stability.

13. Improvement of the resilience of the primary sector to weather shocks. For instance, irrigation, increased use of GMO cotton seeds, and more crop rotation have led to greater productivity and improved resilience to weather shocks. Other measures in the cotton sector, such as the provision of subsidized inputs and an income support scheme, have led to more stable incomes in rural areas where poverty is concentrated.

- Growth poles as an innovative way to improve growth inclusiveness. The establishment of a "growth pole" on the Bagré reservoir has enabled a diverse set of economic activities, initially supported by the government/World Bank, gradually being sold to private sector investors. The reservoir, infrastructure and services established support diverse activities such as fishing, dairy production, diverse crops, ecotourism, and a hydroelectric dam. The project also offered land and training to the local population, as well as free public services, such as schooling. Investors have shown such keen interest that the authorities are planning three additional growth poles elsewhere in the country.

- Establishment of social transfers, food security schemes, and employment creation measures. Recently, the rhythm of social spending accelerated as social expenditure packages were decided by the Council of Ministers in September 2013 and March 2014 (amounting to 1 percent of GDP each year). Measures included:

  - targeted transfers for vulnerable groups (orphans, street children, elderly, handicapped);
  - targeted transfers for vulnerable groups (orphans, street children, elderly, handicapped);
  - creation of additional labor-intensive rural jobs (waste recycling, housekeeping, health care, etc), and training programs for young workers;
  - better food security through increased use of "boutiques témoins" (small public grocery stores selling staple goods at subsidized prices);
  - credit lines/loan guarantees for small entrepreneurs (female, informal sector associations, small and medium enterprises); and
  - expanded university infrastructure and more scholarships, to facilitate student participation and enrollment.

- In order to improve the energy supply, the authorities have undertaken numerous projects supported primarily by international donors. Those projects include the construction of solar plants, thermal plants and interconnections in order to improve import capacity and increase its diversification.

Box 1. Burkina Faso: Strategy for Accelerated Growth and Durable Development

The Strategy for Accelerated Growth and Sustained Development (SCADD) sets out economic and social policies to support broad-based growth, sustained poverty reduction, and progress towards the MDGs (MEFP, ¶14). At its outset, it was estimated that full implementation of the strategy—disregarding capacity or financing constraints—would be around US$ 15 billion. The strategy follows 4 main axes:

- **Development of accelerated growth pillars:** in pursuit of a growth target of 10 percent, the SCADD contains measures to improve the business environment, and develop "growth poles" to attract private investment.
- **Consolidation of human capital and promotion of social protection**: the SCADD focuses on investment for expansion of health sector primary education, with coordinated expansion of secondary and vocational education. The SCADD also aims to improve the equity of resource allocation.
- **Strengthening of governance**: the SCADD emphasizes internal and external controls to curb corruption and improve accountability of public institutions. A main challenge is judicial reforms.
- **Crosscutting priorities in development policies:** reduce gender inequalities, control population growth, sustainable use of natural resources, capacity building.

Taking into account capacity and financing constraints, the strategy sets interim targets to assess implementation progress. Two-thirds of 2013 measures or indicators were implemented or met, notably feasibility studies for three new growth poles, implementation of special export zones, and launching of a new household survey. However, some areas are lagging, e.g. more use of private sector partnerships, implementation of a rural strategy, youth employment action plan, an anti-corruption law and judiciary reforms.

Establishment of a universal health insurance scheme aims to cover 50 percent of the population by 2025, at a cost broadly estimated at 2 percent of GDP. Other health projects in the short run aim to hire health care professionals, establish facilities, and assure free healthcare for children under 5 (20 percent of the population). The 2010–20 education strategy plans to hire 3700 teachers per year, build or renovate existing classrooms and buy textbooks, with a goal of 100 percent primary school enrollment by 2021, at an additional cost of 2 percent of GDP per year.

During the second phase of the SCADD (2014–16), the strategy will focus on priority measures including:

- Promotion of growth poles with the adoption of an investment code.
- Development of industrial zones to promote small enterprises.
- Development of infrastructure support.
- Promotion of employment and professional formation with the adoption of an action plan for the national employment policy.

E. Constraints to Inclusive Growth

14. As reflected in the main axes of the current ECF-supported program and despite the improvements, much remains to be done to achieve a more inclusive growth. The main identified constraints are:

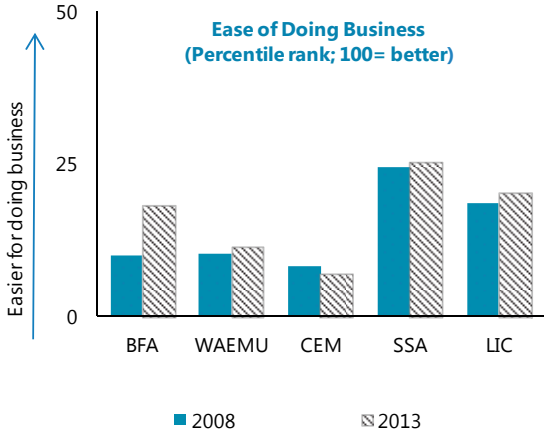
- Unreliable and expensive electricity supply.
- Prominent infrastructure gap (transport, energy, health, education). In particular, while there has been good progress with primary school enrollment, more is needed for secondary and university education, as well as vocational training tailored to labor demand needs.
- Limited access to financial services. In 2012, only 16 percent of the population had access to these services.
- Prevalence of unemployment or underemployment. In Burkina Faso, the issue particularly among the young.
- Need for a stronger judiciary. Although relevant indicators have improved in Burkina Faso and are above regional standards (Figure 2), the World Bank states that Burkina Faso's justice system suffers from a number of serious systemic weaknesses and that the government's commitment to fighting corruption has yielded mixed results.[3]

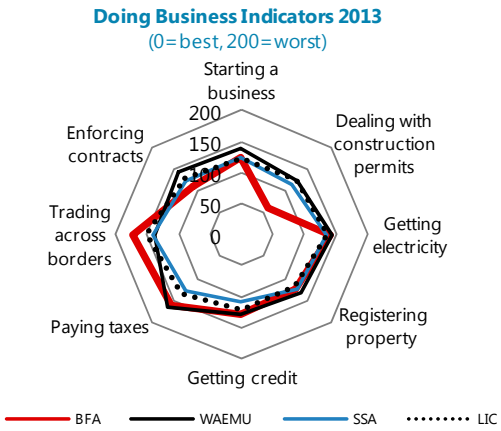
15. In the report Burkina Faso, Competitiveness and Diversification,[4]the World Bank identifies 3 main factors that are crucial to inclusive growth: human, physical and financial capital. In terms of human capital, aside from education, the paper identifies unabated population growth in Sub-Saharan Africa as a major obstacle for achievement of its development goals, and argues that dealing with population growth should be a higher priority. The paper notes that closing the infrastructure gap is necessary to sustain more inclusive growth, especially in energy and transport. Finally, the report calls for improved access to financial services, explaining that small and medium enterprises have little access to financial services and aside from cotton, there is little credit available for agriculture. The World Bank's Doing Business indicators also show that Burkina Faso's weaknesses are in the sub indicators: "getting electricity," "trading across borders and "getting credit" (Figure 2). The overall Doing Business index has increased over the years, although it dropped in the rankings to 154 in 2014, compared to 149 in 2012 (out of 185).

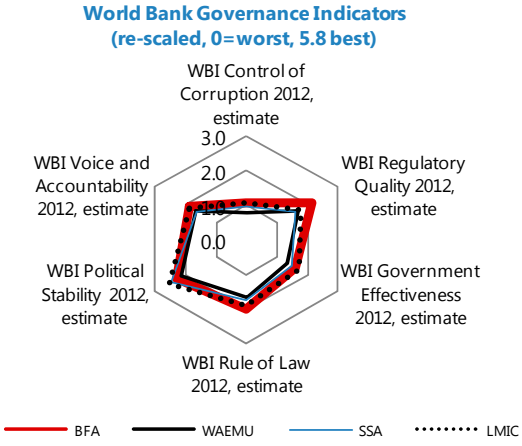
[3] Report No. 80557-BF, November 7 2013, the World Bank.

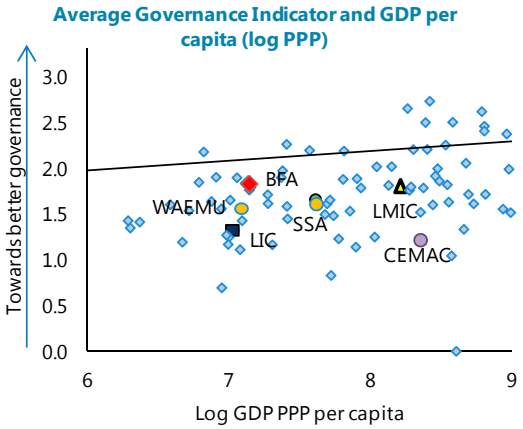
[4] Report No. 51815-BF, November 24 2009, the World Bank.

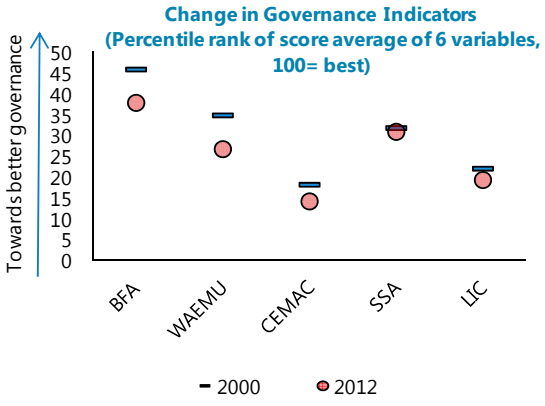
Figure 2. Burkina Faso: Business Environment and Governance

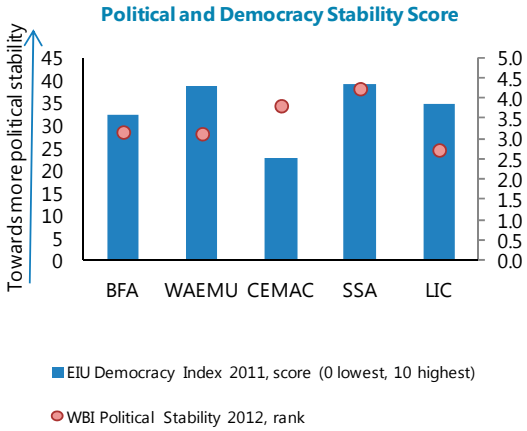












Sources: *Doing Business, 2012*; World Bank's *Governance Indicators, 2011*, (average of control of corruption, government effectiveness, rule of law, regulatory quality, political stability and voice and accountability); Economist Intelligence Unit (EIU); and IMS staff calculations.
SSA = Sub-Saharan Africa; LIC = Low-income country; HIC = High-income countries; UMIC = Upper-middle income country; LMIC = Low-middle-income country; OIL = Oil producers; RR = Resource-rich countries.

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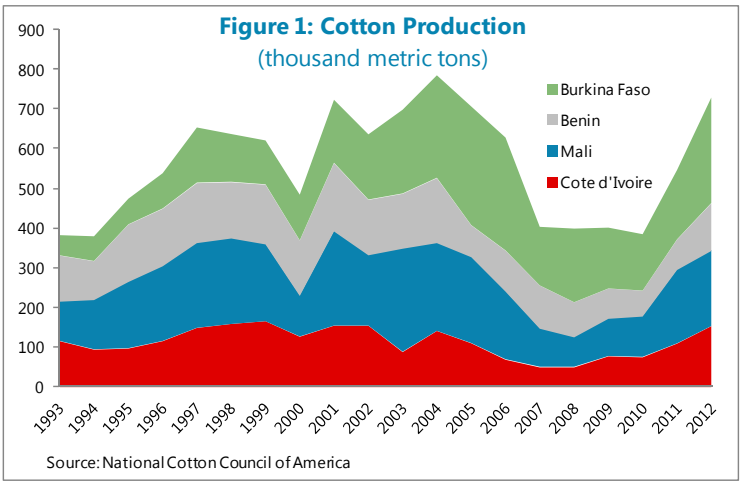
AN OVERVIEW OF THE COTTON SECTOR IN BURKINA FASO[1]

In spite of its small share of GDP and diminishing share of exports, cotton remains a principal source of livelihood for the rural population. However, the sector is vulnerable to a number of factors, such as weather, international prices, and exchange rates. Burkina Faso has put in place reforms to improve the resilience of cotton income against these vulnerabilities while enhancing productivity. While the state-owned cotton ginning company and income and price stabilization schemes do represent contingent fiscal liabilities for the government, compensatory income transfer schemes would be more costly still.

1. Although comprising only 3.5 percent of GDP in real terms, cotton supports a large share of the rural labor force in Burkina Faso, and represents 18 percent of goods exports as of 2013 (down from as high as 60 percent prior to the gold boom). The World Bank estimates that between 15 to 20 percent of the labor force derives its income directly from cotton.[2] Thus, cotton effectively plays the role of the social safety net in Burkina Faso. A number of structural reforms (Box 1) contributed to one of the highest growth rates of cotton production in West Africa, a three-fold increase from late 1990s to mid 2000s and more recently outpacing average growth of production in West Africa (Figure 1). Moreover, various public policies, such as the establishment of the stabilization fund and provision of affordable fertilizers, have been introduced to increase the resilience of cotton income against volatility. Despite these successes however, the sector faces various risks, and exposes government to contingent liabilities. The policy challenge is to find solutions that limit the fiscal risks and continue structural reform while appreciating the importance of the sector as a source of livelihood.



[1] Primary contributor was Mehmet Cangul, with contributions by Bamory Ouattara, Jean-Baptiste Le Hen, and Benoit Taiclet.

[2] Kaminski, Jonathan. "Cotton Dependence in Burkina Faso: Constraints and Opportunities for Balanced Growth", Chapter 6 of "Yes Africa Can: Success Stories from a Dynamic Continent", World Bank 2011.

Box 1. Burkina Faso: Reforms and Productivity

From the second half of the 1990s to early and through mid-2000s, production experienced remarkable growth, an increase of nearly three-fold. Although, expansion of cultivated land can explain a large part of this increase, especially in the earlier years, certain structural reforms deserve mention.

Principle of "free-adhesion" by which farmers could join production groups individually instead of being tied to a village allegiance increased incentive and self-initiative. In addition, responsibility for coordination of the sector passed to an inter-professional association comprised of the national farmers' and ginners' associations. These reforms encouraged better market coordination along the value chain and more self-enforcement of contracts; both areas tend to be bottlenecks to performance of cotton industries in the region. At the same time, access to finance and inputs have been facilitated for small farmers, and transportation services are now provided by the private sector. Better training in irrigation and crop rotation, higher quality seeds to farmers in addition to the more efficient application of GMO technology comprise the more recent reform efforts. For example, Burkina Faso has been at the forefront of embracing GMO cotton in Africa, and has successfully reduced the number of required insecticide treatments per seed from eight to two. Hand-picking, combined with higher standard testing and better quality achieved from GMO at cheaper cost has made Burkina Faso one of the premium suppliers of cotton in the world.

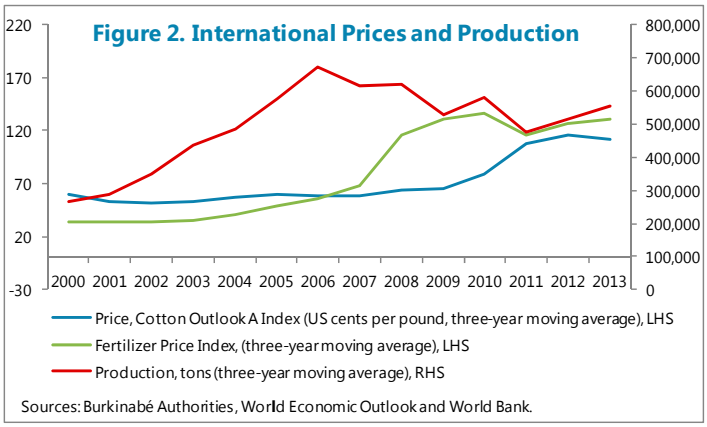
On the other hand, expansion of input factors, namely land and labor played an undeniable role in the rise of production, especially in the earlier years. In fact, cultivated land expanded from 74,000 hectares in 1981 to 406,000 hectares in 2003, bringing to relief the issue of long-term land sustainability. However, per hectare production showed improvements in recent years. For example, overall production per hectare increased 4.6 percent in the last two harvests. Some estimate that GMO cotton increased yields by an average of 18.2 percent over the conventional variety (Vitale et. al, 2011) While the two private companies operating alongside SOFITEX, Faso Coton and SOCOMA historically had higher productivity, SOFITEX's productivity, measured as production per hectare has improved, having risen 14 percent in the last three years to 1000 kg per hectare. This has been partly due to the pressure of competition, but also the fruition of aforementioned reforms.

A. History

2. The history of large-scale cotton production in Burkina Faso goes back to the colonial era when it was managed by the French administration through a combination of coercion and incentive, but with little success that often resulted in subsistence crises. Since then, the sector has witnessed much change and upheaval. Subsequent to independence in 1960, cotton was well integrated into the economy with heavy state involvement. In 1979, Compagnie Francaise pour le Dèveloppement des Fibres Textiles, (CFDT) partnered with the Burkinabé authorities to coordinate production and exportation, eventually culminating in the emergence of SOFITEX, the state-owned ginning company.

3. In 2004, SOFITEX sold some of its ginning capacity and regional production rights to two companies, Faso Coton and SOCOMA, which currently control roughly 20 percent of production. The partial selling occurred mainly as a result of liberalization reforms encouraged by the World Bank. The sale was made more attractive by giving exclusive rights to production zones to the two companies, which are owned by a mix of private investors, both foreign and domestic, as well as quasi-state actors such as the Burkinabé transportation company (SOBA).

4. Between 2006 and 2011, three year moving average of production decreased 17 percent, (Figure 2) even though in the last two years, production made a recovery, outpacing regional growth trends to make Burkina Faso the largest producer in the region. At the same time, weather patterns became more volatile and difficult; there was a severe drought in 2011 that resulted in a 12 percent drop in overall agricultural production. The emergence of gold pushed cotton out of its position as Burkina Faso's primary export. More recently, there are anecdotal reports that the attractiveness of wages in artisanal gold production has enticed workers away from the cotton sector, although thus far there is no statistical evidence of Dutch-disease effects. Meanwhile, as can be seen in Figure 2, three-year moving average of fertilizer prices have risen significantly between 2006 and 2010, much more so than the rise in cotton price, exposing the sector to a growing difference. The worse scenario would of course be a scissor effect, observed in 2006–07 (that partially led to the difficulties of SOFITEX) where fertilizer prices rise at the same as cotton prices decline. This is a possibility that could arise again, and should be incorporated to a realistic risk analysis facing the sector.



5. To cope with some of these volatilities and trends, with consultation and assistance from donors, the government established various funds to provide support to producers, and stabilize their incomes, namely the Stabilization Fund and the Inputs Fund, discussed below.

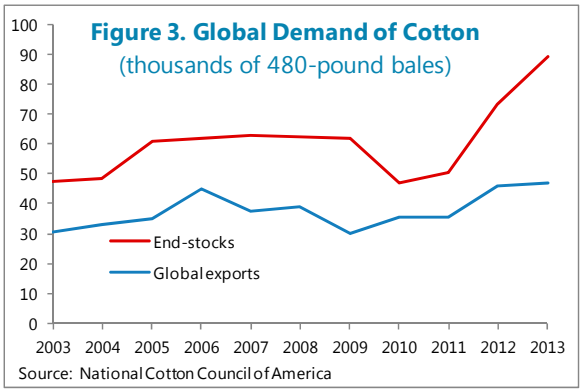
B. Economic Structure and Risks

6. The structure of the cotton sector in Burkina Faso is a division of labor between producers and ginning companies. The latter process raw cotton purchased from the producers (farmers grouped in production zones assigned to ginning companies) to manufacture useable lint (ginned cotton not yet spun into thread), 99 percent of which is exported.

Short-term risks

7. Weather, exchange rate, and seasonal volatility of international cotton prices, fuel, and fertilizers comprise the main elements of short-term risk, which the sector partially mitigates through two publicly-managed schemes, the "Stabilization Fund" and the "Input Fund."

Long-term risks



8. The main long-term risk is a structural downward trend in prices. This is due to an increase in global supplies of cotton in conjunction with waning demand based on the emergence of competing textiles, such as higher quality synthetic fibers and/or cheaper alternatives. Cotton maintained its dominance in the textile market until the beginning of 1990s, and though it was losing relative market share to other products, demand was still increasing in absolute terms until 2008, (ITC, 2013). Thereafter, demand weakened markedly, switching to synthetic fibers. In the meantime, international inventories have been rising. While production is encouraged by a variety of subsidy mechanisms, market absorption rates have been in decline. As can be seen from Figure 3, global exports have not kept pace with fast rising stocks.

Contingent liabilities

9. Both the short and longer term risks give rise to potential liabilities for the government budget. First is SOFITEX's financial position, and the question of potentially continuing and growing state support going forward, (Box 2). In 2007, SOFITEX underwent major restructuring with an injection of 16.4 billion in capital. Furthermore, the viability of SOFITEX's business plan assumes relative price stability at high levels in the absence of which further losses would be inevitable.

10. Second is the liability arising from the need to replenish the smoothing fund established to protect farmer income (Box 3). If cotton prices assume a lower trajectory, and there is pressure to maintain the existing levels of the purchase price offered to farmers, this would cause additional pressure for further transfers out of the budget.

Box 2. Burkina Faso: SOFITEX Building on a Legacy

Following independence, a cotton company (Sociéte Voltaïque des Fibres Textiles) was founded, with 1.1 billion CFAF in capital, divided among the government (55 percent), the CFDT, (44 percent) and domestic private investors (1 percent). In 1981, after a capacity expansion, capital was doubled, and doubled again in 1984, to 4.4 billion, with the government's share rising to 65 percent. The company was then renamed "SOFITEX" (Burkinabe Society of Textile Fibers). In the early 1990s, state participation scaled back amidst increasing pressure to open up the sector to market reform. Following various structural reforms, the state sold half of its share to producers' organizations for one symbolic CFAF in 1999.

Subsequent reforms aimed at liberalization while maintaining the benefits of an integrated sector. The monopoly of SOFITEX was broken following the 2004 partial selling of its ginning plants, with two additional players, Faso-Coton and SOCOMA, which split the remaining market share. However, volatility in international cotton prices, rising fertilizer prices, combined with CFAF appreciation caused losses, which resulted in a major restructuring of SOFITEX's capital in 2007. SOFITEX accumulated serious losses from 2005 to 2008, rising to more than 2 percent of GDP. The situation led to a number of difficulties, including an escalating loss of confidence with creditors, which made operations, especially provision of input credits, increasingly difficult. A new financial restructuring took place in 2012, through: (i) revaluation of SOFITEX's assets (ii) incorporation of 2010 losses; and (iii) capital injection of 16.4 billion by the government. In 2012, the government provided transfers amounting to CFAF 21 billion to SOFITEX.

Evolution of Capital Structure

	1979	1981	1984	1999	2007	2012
Capital (CFAF Bn)	**1.1**	**2.2**	**4.4**	**4.4**	**38.68**	**19.52**
Burkinabè State	55%	63.66%	65%	35%	65.44%	94.46%
o/w FBDES					30.28%	4.85%
CFDT	44%	35.34%	34%	34%	3.87%	0.62%
Cotton producers				30%	30.14%	4.83%
Burkinabè private sector	1%	1%	1%	1%	0.55%	0.09%

FDBES: Developpment fund

SOFITEX is the largest of the three ginning companies, and retains 80 percent of total cotton production in the country. It provides research and other supporting services to the other two companies, and has provided ginning services to them when their yields exceeded their capacity. While the relationship between the three companies is cooperative, SOCOMA and Faso Coton are still seeking to acquire larger market shares from SOFITEX; further redistribution of the regional coverage has been under negotiation for the past two years.

Challenge for the future: reducing the government share:

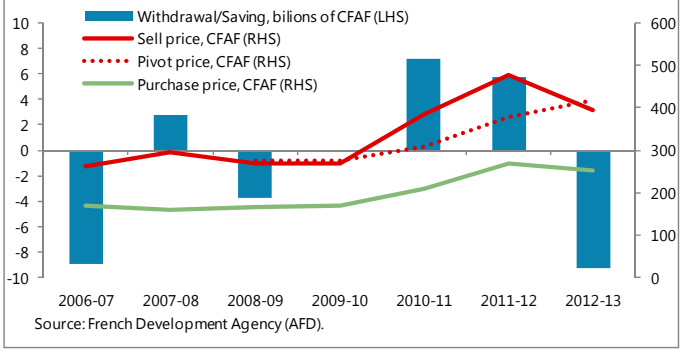
The main strategy of SOFITEX is to return to a sustainable financial profile in order to make the company more attractive for divestiture of the state's ownership while safeguarding the incomes of farmers and extended families that rely on the company. To put the company on a sounder financial footing, the SOFITEX 2012–16 business plan aims at (i) increased productivity; (ii) restoring profitability; and (iii) diversification to other crops. Among other priorities, the plan seeks cost cutting and sounder investment choices. In line with these objectives, the authorities updated the financial projections for 2013–16 underlying the SOFITEX business plan based on financial results for the 2012 fiscal year (program structural benchmark). The revised financial projections foresee a strong increase in profits from 2012 to 2016 on account of lower costs and improved sales. Based on this and other updated projections (international prices, yields, cultivated land, etc.) the authorities are doing a more comprehensive update of their business plan (end-December 2014 structural benchmark). In the lead up to the 2nd review of the ECF arrangement, staff will discuss with the authorities in more detail the updated financial projections, with the intent of better understanding whether they provide a realistic and cautious basis for an updated business plan that can restore the financial sustainability of SOFITEX. Staff have sketched out three possible scenarios going forward based on the updated figures of the 2012–15 business plan:

Scenario 1 status quo:	Purchases and sales of raw material follow the market trends, other expenses follow the consumer price index (CPI); productivity of operating factors is kept unchanged; income taxes are forgone to the company; and government transfers balance the company's losses.	Company's income drops continuously and the government needs to make further transfers to restore balance.
Scenario 2: cost cutting (e.g. business plan's objectives)	Productivity of operating factors (workforce and transportation) improves by 0.5 percent over three years; savings are made on outsourcing and other expenses to an amount of 5 percent yearly; income tax is forgone to the company; and government transfers balance losses.	The company recovers slight net worth, but still needs significant transfers.
Scenario 3: cost cutting +more flexibility	In addition to scenario 2, revenue from sales increases by 3 percent the first year and stabilizes afterwards, expenses from purchases follow the market trend, and government transfers stabilize from 2014 onwards.	Company recovers moderate profitability, and starts re-investing. Government transfers stabilize.

Box 3. Burkina Faso: Stabilization Fund *(Fonds de Lissage)*

To protect the income received by farmers in light of fluctuating international prices, a smoothing fund was established (Fonds de Lissage) in 2007. It was financed by a 15 million euro loan and 3 million euro grant from the French Development Agency, amounting to an initial capital of 11.8 billion CFAF. The basic concept is that farmers are subsidized in years when prices are low, and the fund is replenished in years when prices are high. In the beginning of the season, the cotton association announces a "floor price" (the same for all the three companies), which is 95 percent of the "Pivot price", a reference based on the average international price of the fiber in the last three years. This is subject to various adjustments based on the recovery rate of the fiber, export value and farmers' debt to the ginners. Farmers are paid the adjusted floor at the delivery of the cotton. At the end of the season, the "ex-post" price of cotton is calculated using the average sale price during the season. If the "ex-post" price is between 95 percent and 101 percent of the pivot price, producers receive a refund. If the "ex-post" price is lower than the floor price, ginners receive a compensating payment from the stabilization fund. If the "ex-post" price exceeds 101 percent of the "pivot" price, the exceeding portion goes partly to the "stabilization" fund, partly to the ginners and partly to the producers. The adjusted floor plus any additional amount based on the ex-post price is the final "purchase price" producers receive. In the 2012–13 harvesting year, there was a significant draw down of funds (9.3 billion CFAF, more than 68 percent) from the Fond de Lissage when prices were relatively high, although down significantly from the previous harvest. This begs the question of the medium-term sustainability of the Fund, which is supposed to operate on a counter-cyclical basis, (Figure 5, Table 3). The conversion of the average Factor (in the calculation of the pivot) from 7 years originally to 3 has in fact rendered the model more pro-cyclical due to the bias of recent high prices, (Figures 2 and 3). Preliminary discussions indicated that for the 2013–14 harvest, there was no withdrawal from the Fund.

Figure 4. Prices and Movements in "Fonds de Lissage"



Source: French Development Agency (AFD).

The Smoothing Fund (Fonds de Lissage)

(in billions of CFAF unless otherwise indicated)

	2006-07	*2007-08*	*2008-09*	*2009-10*	*2010-11*	*2011-12*	*2012-13*	*2013-2014*
Withdrawal	8.9	-	3.8	0	-	-	9.3	0
Deposit	-	2.8	-	0	7.2	5.8	-	0
Cumulative amount (billions of CFAF)	2.8	5.6	1.8	1.8	7.8	13.6	4.3	4.3*
International price (US cens per pound based on Cotton Outlook A Index)	58	63	71	63	104	155	89	90

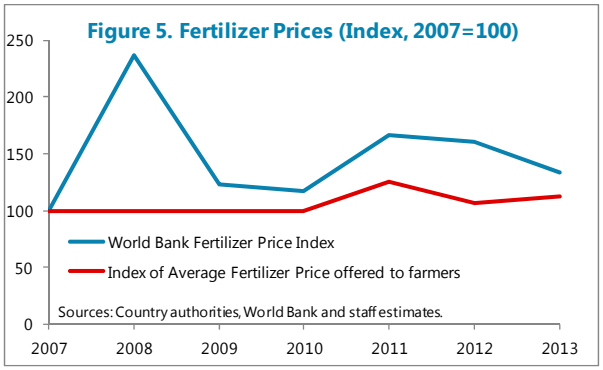
Source: Burkinabé Authorities and French Development Agency (AFD)

*Excludes additional oprations (such as interest received) that bring the current balance to 5.4 billion CFAF.

11. On the other hand, fertilizer and other input costs partially linked to the volatile oil market can put further pressure on the costs of SOFITEX as well as the profitability of the overall sector. An Inputs Fund, (Box 4) has been established, with consultation from the World Bank, to contain these costs for all three companies.

12. However, the less transparent and potentially larger risk would be the increase in social transfers if cotton prices decline more than expected. Since a large cross-section of society depends on the crop for their livelihood, the implied obligation of the government would be to further smooth cotton income (in addition to the explicit mechanism of Fonds de Lissage) in the form of poverty assistance and expansion of social safety nets.

Box 4. Burkina Faso: Inputs Fund



International fertilizer prices have been volatile while subsidized prices offered to farmers have remained fairly flat to shield the farmer from this volatility, Figure 6. However, this has come with a cost. According to SOFITEX, fertilizer costs comprise roughly half of the end-product value. The Input Fund, established in 2012 (with the formal procedure signed in the summer of 2013), is designed to contain these costs (primarily of fertilizers as well as the costs of other inputs) by serving as collateral specifically backing up input credit lines established by companies in banks that have agreed to provide credits within this framework. The fund works by serving as a guarantee mechanism that enables ginning companies to receive input credit at lower costs and on more flexible, longer terms, potentially allowing better synchronization with the vicissitudes of the harvest. In addition, with more flexible terms, ginning companies can gain information to purchase fertilizers when the international prices are lower in the cycle. All of this would result in lowering the costs of the initial purchase of fertilizers by the companies, enabling them in principle then to sell inputs to the farmers at reduced prices with less distortion from subsidies. Currently, the Fund is capitalized with a 10 billion CFAF capital from the state. Each company i s assigned a share of the guarantee (based on the amount of inputs they ordered for the current harvest through their respective banks), which enables them to purchase a minimum of five times their share, but not more than the value of the inputs sold to the farmers, Table 4. Ecobank is retained as the main party responsible for the management of the fund. The mechanism is supposed to begin operations for the 2014–15 campaign, but initial observations by the inter-professional association, AICB, indicate that fertilizer costs for the current harvest have already begun to decline.

Inputs Fund

	Amount of guarantee assigned (billions of CFAF)	Percent of share
Sofitex	8	78
Socoma	1.6	16
Faso Coton	6	6
Total	10.2	100

Source: Country authorities.

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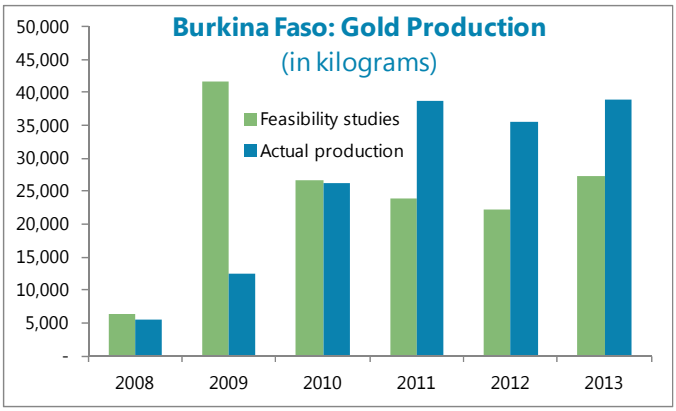
MINING SECTOR AND CONSIDERATIONS FOR A FISCAL RULE IN BURKINA FASO[1]

Gold mining has developed very rapidly in Burkina Faso, within 5 years accounting for ¾ of exports. Its main channel of impact on the economy is via additional fiscal revenues and associated spending for investment and development. In order to take advantage of this one-time windfall, policymakers need to develop and approve a mining taxation code that ensure fair rent-sharing between the government and international investors, and consider a fiscal rule that can help direct the use of these additional revenues towards growth-enhancing spending over a multi-year context, taking into account capacity constraints and commodity price volatility.

A. Development of Gold Mining

1. Mining growth in Burkina Faso, in particular gold production, has been robust.[2] Spurred by new discoveries and a generous taxation code designed to attract international investors, gold mining production grew from negligible in 2007 to almost 39 tonnes in 2013, accounting for 71% of exports, and 16% of fiscal revenues. These official statistics are based on 6 mines currently in operation, and artisanal production sold to export companies and reported to customs. However, there has been a boom in informal artisanal production, which could account for as much as 5–20 additional tonnes (Box 1). Production has accelerated far more rapidly than indicated in mines' original feasibility studies, mainly due to large increases in international gold prices between 2007–12. Although international gold prices dropped in 2013, leading to lower exports and revenues, the volume of production in metric tonnes continued to increase, albeit at a more moderate pace, partly as a result of expanded operations in two large mines.



2. Burkina Faso is currently the fourth largest gold producer in Africa, with the third most exploration activity in the continent. Existing mines had estimated reserves of about 260 tonnes, but

[1] Primary contributor was Laure Redifer, with contributions from Gregoire Rota-Graziosi, David Corvino, and Liam O'Sullivan.

[2] This paper deals primarily with gold mining, since that accounts for the largest value of mining output. Manganese/zinc are higher in terms of tonnage, but much lower in terms of value.

recent discoveries suggest that untapped reserves are far higher. Currently, Burkina Faso is said to have the largest number of identified deposits that are not yet mined in West Africa. Although the physical characteristics of Burkina Faso's ore deposits are considered "less than remarkable" (KMPG), with a deposit grade of about 2 g/t (grams per ton), new discoveries (which are further south) appear to be of much higher quality. For example, the Yaramoko project between Ouagadougou and Bobo-Dialosso promises to be a very high profit venture, with one of the highest-grade undeveloped deposits in the world (deposit grade of almost 12 g/t). Moreover, although production costs in Burkina Faso and West Africa are generally about 15 percent higher than the world average, press reports indicate that new sites have lower costs (e.g. Yaramoko has production costs of $590/ounce vs. the average of $756). Thus, mining activity is likely to continue at a robust pace for the next 10–15 years, and the potential revenue gains will be even more substantial if international gold prices recover as expected.

Box 1. Burkina Faso: Gold Production Statistics and Artisanal Production

In the context of the program, the authorities agreed to set up a committee to harmonize official statistics for gold production, which varied between responsible tax administration entities. The committee's work was completed by March 2014 (program structural benchmark). The committee found that part of the production had been partly been recorded in different units, consequently official statistics for gold production in 2012 were corrected to 35.56 tonnes (from 42.42 tonnes previously), with similar corrections for 2013.

The authorities have not yet incorporated this change into their official real and external sector statistics, but staff and the authorities have already incorporated it into the macroeconomic framework for the program, since it implies an important change in the relationship between gold production/exports and fiscal revenues. For the purposes of the framework, the change in production and exports in 2012 implies a very large upward revision in the current account deficit, from 0.8 percent of GDP at the time of the 7th review to 4.5 percent currently. Once the official statistics are finalized, there may be further offsetting revisions to other aspects of the balance of payments. For the time being, overall growth has been kept unchanged in the framework, since the contribution of the mining sector is modest.

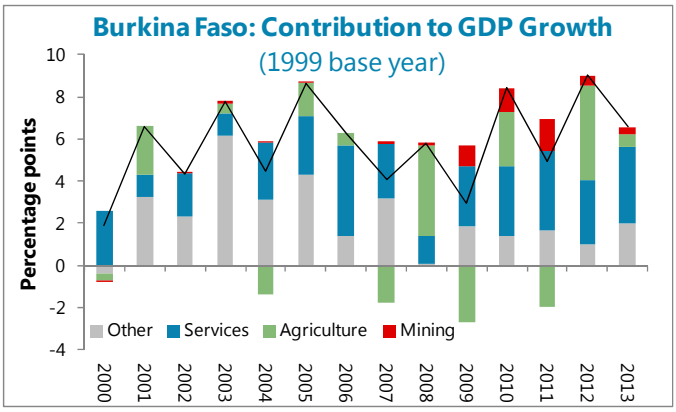
However, beyond the issue of official statistics, that the amount of gold produced by artisanal mines is very likely underreported. A 2011 report by the Ministry of Environment and Social Affairs, as well as in the CES report, assert that 700,000 persons are directly working in artisanal mines. Recorded artisanal production was only 431 Kg in 2011: using 2011 international gold prices and cautiously assuming 500,000 people and zero input costs, this would represent a monthly income of $5 per person, which is very unrealistic, even in a context of low rural incomes. Indeed, the "gold rush" that has taken place in mining regions the past few years—to an extent that there are anecdotal reports that some regions have too few agricultural works) suggests that the activity pays far better.

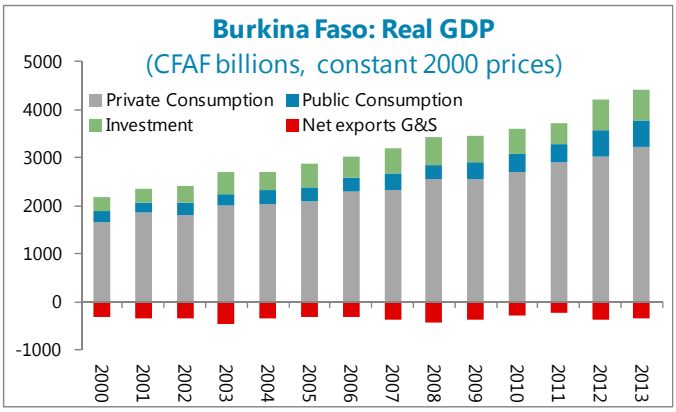
Some measures promoted by the G8 transparency initiative should help improve estimates of the gold production of artisanal mines: decentralization of EITI to local sites, translation in local languages and dissemination of EITI reports, study on artisanal mines (financed by UNICEF, UNDP, France), reinforcement of customs' capacities at the local level. Moreover, the INSD is planning a new survey of informal activity in the context of updating the base year for national accounts; this should also help improve estimates of informal mining activity.

B. Macroeconomic Impacts

Real

3. So far, mining appears to have a relatively limited impact for boosting real activity in Burkina Faso. However, the uncertainty about the size of informal artisanal production makes it difficult to get a clear picture. In the national accounts, mining has a weight of 2.8 percent of real activity, which—according to the Ministry of Environment and Social Affairs—could increase to 4–5 percent if informal artisanal mining were taken into account. Overall direct and indirect activity related to mining is growing modestly, since growing export proceeds have mainly financed higher imports.

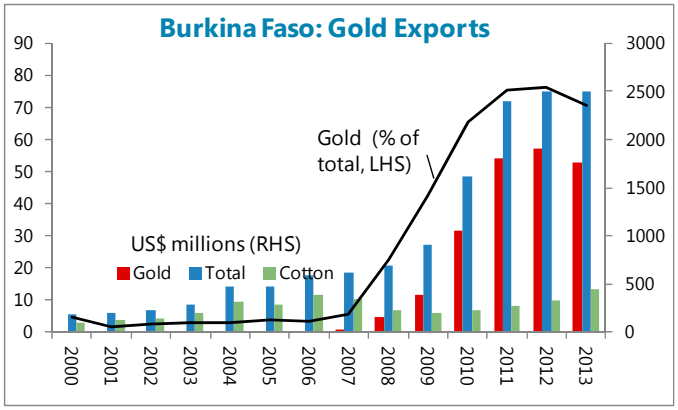




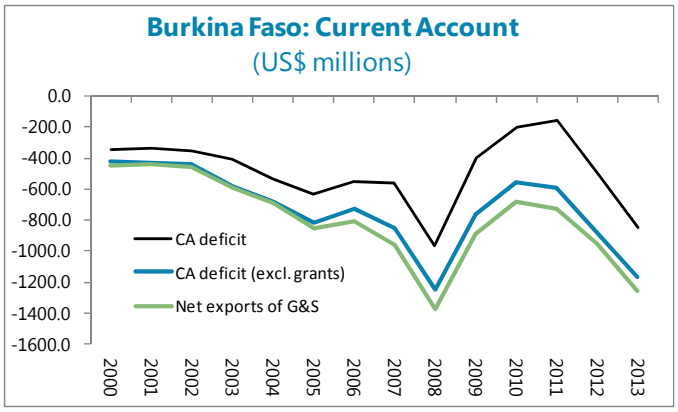
4. Estimates show that formal mining employs roughly 9,000 people directly and 27,000 people indirectly. Indirect employment is mainly transportation, although enforcement of repatriation rules in mid-2013 should draw more upon the domestic financial services sector. The Ministry of Environment and Social Affairs estimated in 2011 that informal artisanal mining employed 700,000 people directly, with about 500,000 others indirectly benefitting. Thus, they contend that artisanal mining has already become significant in terms of reducing poverty and income inequality in rural areas, not only as a result of employment but also as a result of infrastructure created by the formal mines (artisanal mining mostly takes place in relatively close proximity to the formal mines).

External

5. Gold production is all exported, and exports had risen from 5% in 2007 to above 75% of exports in 2011–12 (dropping slightly in 2013). However, this is has done little to improve external balances since exports have been matched by rising imports. Official transfers remain the main factor for muting the size of the current account deficit.

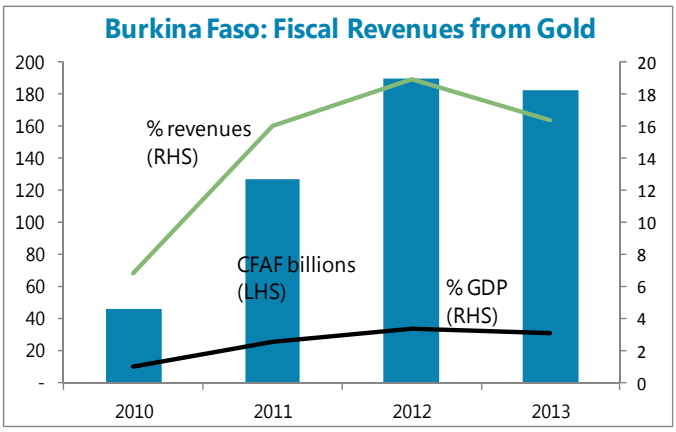


6. Prior to mid-2013, a large share of export proceeds was kept in offshore accounts to be used for hard-currency transactions, including imports (an adjustment line was added to the balance of payments to help account for this). In mid-2013, however repatriation requirements were enforced and mining companies were prohibited from using offshore forex accounts for anything other than debt payments to parent companies. Export flows are now being repatriated, but commercial banks did not fully respect WAEMU forex surrender requirements, which, among other factors, caused a drawdown in imputed international reserves in 2013.

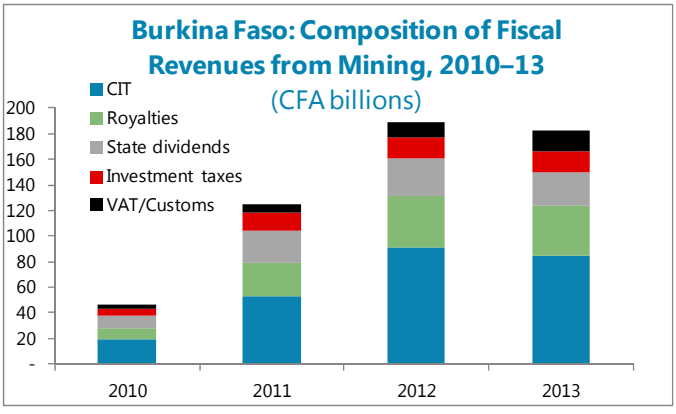


Fiscal

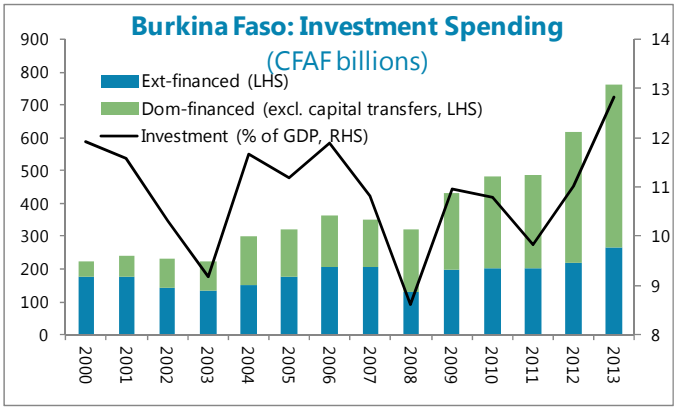
7. The main channel by which mining affects the Burkinabe economy is through fiscal revenues and associated spending. The bulk of revenues are accounted for by corporate income taxes (roughly 45 percent) and royalties (roughly 20 percent). The current mining taxation code in force is from 2003, and it is relatively generous compared to those of comparator countries (Table 1), particularly the corporate income tax. Even so, overall fiscal revenues increased by 3 percentage points of GDP from 2009–12: revenues linked to gold production were responsible for about 2/3 of the improvement.



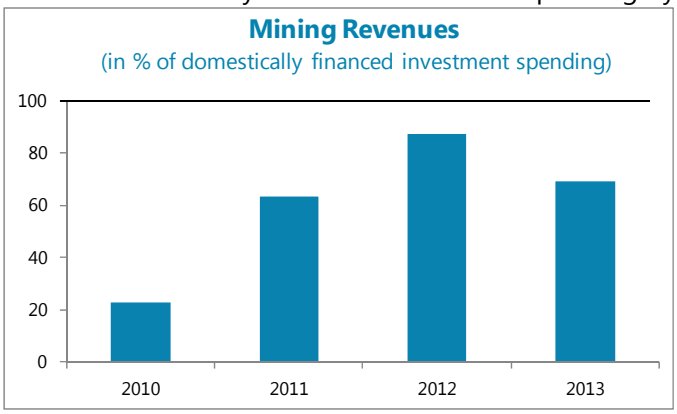
8. Thus, a first priority is to better align the mining and overall tax codes with international best practice to find an optimal balance that still attracts international investors, but ensures maximum fiscal revenues to the government, that can in turn be invested to meet the broad and urgent development needs of the country.



Over the course of 2012–2013, IMF staff provided recommendations to strengthen the existing mining taxation code.[3] In late 2013, a draft of the revised mining code was sent to Parliament for approval, but in light of falling gold prices and pressure from international investors, Parliament sent the draft back to the government for further revisions. Currently the authorities are working on the draft Code and anticipate resubmitting it to Parliament in fall 2014. Consistent with the objectives of the program, the authorities have committed to guarantee that the revised draft code is at least comparable with peer countries in the sub-region. In the meantime, until a new mining taxation code is approved, it will be important that new production contracts approved under the 2003 Code do not benefit from so many specific exemptions.



9. The improvement in revenue collection since 2007 has enabled increases in domestically-financed investment spending, maintaining investment spending relatively constant in the range of 11–12 percent of GDP (at the same time, externally financed investment spending has remained constant in nominal terms and dropped in real terms). However, the increase in mining revenues outpaced the increase in domestically-financed investment spending by a large margin.



10. That investment spending did not keep pace with revenue increases is a function of binding capacity constraints on execution, as well as pressure for additional current spending, in particular for the public wage bill and untargeted subsidies supporting fixed energy tariffs and public enterprises.

[3] Detailed advice was provided over two AFR program missions and an FAD TA mission in May 2013. Key recommendations concerned ring fencing, minimum capital requirements, international taxes, VAT treatment, and establishing an "arm's length principle" in the mining code and general tax code (transfer pricing).

11. Execution capacity constraints are one issue, but the quality of additional spending is at least as important for yielding growth dividends. Externally-financed investment spending, subject to more oversight by donors, has not been scaled up at a similar pace as domestically-financed investment spending. This could be a signal that the quality of additional domestically-financed investment spending may be monitored less rigorously. In any case, if gold prices recover and/or if additional reserve discoveries cause large production increases, there is a ***high risk is that natural resource revenues will increase faster than they can be spent on high quality growth-enhancing investment. Rather, the revenues could instead be used for current spending, either to support inefficient subsidies or in an effort to avoid fiscal surpluses.***

C. Program Objective to Improve Management and Use of Natural Resource Revenues

12. Despite the current more uncertain outlook for gold prices, Burkina Faso has to be prepared in order to manage potentially larger increases in mining revenues. The authorities have taken numerous measures to meet high standards of transparency, including achievement of full EITI compliance in February 2013. A first priority is the aforementioned recalibration of the mining taxation regime to ensure fair rent-sharing between the government and international investors. A final priority will be how these non-renewable resources should be used for public investment that can maximize their growth dividend. Capacity constraints clearly limit what can be spent in a single year and revenues themselves are unpredictable: if the resources are not to be wasted, a multi-year planning horizon with rules for spending in any given year is imperative. The country needs prepare and put in place effective rules now, so it does not waste this one-time windfall. Using the FARI model, staff produced a variety of simulations to consider the range of potential resource revenues in the coming years (Table 1). Using conservative production assumptions from the macroeconomic framework, there are varying price assumptions. One scenario uses baseline price assumptions, but introduces a large increase in production.

D. Considerations for a Fiscal Rule

13. Burkina Faso is part of the West African Economic and Monetary Union (WAEMU), and thus already subject to fiscal rules in the form of fiscal convergence criteria, which are currently under revision. In discussions with staff, the authorities – while not opposed to a specific rule for natural resource revenue use – do insist that such rules would have to be considered at the regional level. At a minimum, fiscal rules for natural resources would need to be consistent with revised WAEMU fiscal convergence criteria.

14. With finite resources and extensive development needs, the objective is to direct the use of natural resource revenues toward public spending for development, in particular investment. Burkina Faso's natural resource horizon is finite, but of relatively long duration. For such LICs with this profile and scarce capital, the key objectives in considering a fiscal rule should be macro stability and spending for development. In Burkina Faso's case, macro stability is fairly well-established, but the volatility of international commodity prices adds uncertainty to revenue projections and the sustainability of a given spending path. In more developed economies, longer term fiscal anchors

are designed to support intergenerational equity for use of the non-renewable resource. Burkina Faso's pressing social needs imply that future generations would be best served by frontloading growth-enhancing spending as much as possible while still protecting the quality of marginal spending. Thus, a shorter term fiscal anchor would be more appropriate. Ongoing monitoring of the competitiveness of non-resource export sectors is still warranted. Table 3 summarizes the various types of fiscal rules, country experiences, and specific considerations for Burkina Faso.

15. The authorities are opposed to dedicated investment funds, since earmarked funds have not worked well in the past. Keeping a large pool of resources for use outside of normal budget processes would render it extremely vulnerable to political pressure, and would undermine institutional capacity for the normal budgetary planning, execution and monitoring processes. Therefore, a fiscal rule would need to apply to the overall budget, attentive to smoothing spending against a volatile resource base and containing spending within execution capacity, either through limits on spending and/or the fiscal balance. The point would be to build in a margin of countercyclicality such that in times of plenty the fiscal balance is constrained—even allowing a budget surplus—so that some revenues can be saved, to be used in the future in times of need. Additional considerations for a fiscal rule are institutional constraints, the still relatively high level of grants received, and the need for simple rule that can be broadly understood and approved in domestic legislation.

16. Price-based and fiscal balance anchors require frequent decision-making and/or ongoing revenue/GDP projections to determine the annual spending envelope. The non-resource primary balance rule requires objective projections of non-resource revenues and the ability to measure non-resource GDP—both of which would be difficult to do objectively with the current budget planning processes. The current balance rule can help direct resource revenues toward additional investment spending by setting constraints on current spending, but suffers similar problems with the annual budget process. In addition, it requires a clear distinction between current and investment spending that: (1) does not take into account that some development spending is necessarily operational in nature (i.e. teachers, doctors, free school lunches); and (2) lends itself to abuse in practice since spending can be easily re-categorized. A price-based rule requires an independent committee to set a limit on the annual deficit based on anticipated revenues given international price projections. Again, this type of frequent decision making that requires objective forecasting may be vulnerable to political interference. For example, revenue projections in the budget are often increased by parliament, and an automatic price adjustment mechanism for fuel prices is in place, but does not function.

17. On balance, a multi-year expenditure growth rule might be more straightforward, both operationally and intuitively. The point of the rule would be to smooth spending in line with realistic capacity to execute high quality spending, and to protect medium term expenditure planning against pressure from volatile resource revenues. A spending growth rule would be set on a multi-year basis, with a review/readjustment required at regular intervals (every 3 years for example) to account for capacity improvements, structural commodity price trends, and/or higher growth. Such a rule would not direct spending toward investment, per se, so the composition of spending

would have to be monitored carefully, but it would avoid ad-hoc spending adjustments in response to volatile revenues (in particular to avoid budget surpluses). It would be important to consider what type of public financial management capacity would be needed to help monitor composition of spending, since the 2014 Fiscal Monitor provides some evidence that the presence of expenditure rules tends to be associated with lower investment in emerging market economies that have less developed public financial management systems. Experience in other countries (Peru and Mongolia) suggests that an expenditure growth rule would be more effective if combined with an overall balance or structural fiscal balance rule: in Burkina Faso's case existing WAEMU fiscal convergence criteria already provide this.

18. Staff did stylistic simulations to explore how an expenditure growth rule might smooth spending (Table 4). Compared to the "high production" scenario (baseline assumptions for international prices and higher production from new discoveries), positive and negative shocks were introduced and spending was determined by simply holding the fiscal balance constant and by introducing an expenditure growth rule. In the constant fiscal balance scenario, spending is adjusted each year to maintain a deficit of 2.6 percent of GDP, representing a conservative level of external and domestic financing. Given the large variation in resource revenues, spending varies dramatically from year to year to maintain the deficit (a large increase during the positive shock and a decrease during the negative shock). Introducing a fiscal rule that allows spending to grow by 9 percent per year (roughly the same as projected nominal GDP growth), maintains a smooth spending path. Assuming the same level of available financing as under the fixed balance scenario, the implied lower average deficit enables some saving of resources during the positive shock that can be drawn upon later to help finance spending during the negative shock. (Savings over time could take the form of less or negative domestic financing, or some type of resource fund for use for the general budget.) For the sake of simplicity, GDP assumptions and interest costs are assumed to be the same across the scenarios: varying these would enhance the positive aspects of the fiscal rule.

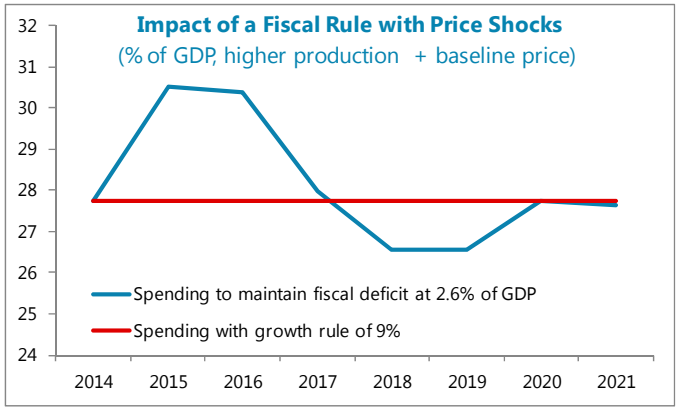


Table 1: Comparison elements of mining taxation codes in Africa [1]

				Taxes on capital income		
	royalties	**CIT**	**other mining-specific taxes**	**interest**	**dividends**	**state share**
S. Africa	variable rate, max of 7% for raw metals	28%, variable rate for gold mines			10%	
Botswana	5% for metal	variable rate, min 25%		15%	15%	
Burkina Faso	**3-5%**	**17.50%**		**6.25%**	**6.25%**	**10%**
Ghana	3-6%	25%		8%	8%	10%
Guinea	5%	30%		10%	10%	15%
Liberia	3%	30%	20%	5%	5%	
Malawi	3%	30%	10%	15%	10%	
Mali	6% (1991 Code), 3% (1999 Code)	35%	3%	15%	10%	10% minimum, 20% standard
Mauritania	3-9%, (gold 4%)	25%		10%	10%	
Mozambique	3-12%	32%		20%	20%	
Niger	5.5-12%	30%			15%	10%
Namibia	5-10%	38%			10%	
Sierra Leone	5%	30%	12.50%	10%	10%	
Zambia	3-5%	variable rate, min 30%		15%		Variable, with norm of 10%

[1] This table does not show exemption periods for corporate income taxes, and does not include other comparisons such as the quality of minerals and mineral content and costs of production.

Table 2. Macroeconomic Impact of Gold Sector Under Different Price/Production Scenarios

	Gold Prices (US$/ounce)						Gold Production (volume change, percent)						Fiscal Revenue CFAF bn (percent of GDP)					
	2014	**2015**	**2016**	**2017**	**2018**	**2019**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
1st Review	1372	1390	1418	1446	1487	1511	5.0	5.0	5.0	5.0	7.0	7.0	196.6	193.1	203.4	223.0	230.1	242.4
	-6.0	1.3	2.0	2.0	2.8	1.6							(3.1)	(2.8)	(2.7)	(2.7)	(2.5)	(2.5)
High Production Scenario	1372	1390	1418	1446	1487	1511	26.0	15.2	5.0	5.0	7.0	7.0	236.0	254.2	267.8	293.6	303.0	319.2
	-6.0	1.3	2.0	2.0	2.8	1.6							(3.7)	(3.6)	(3.5)	(3.5)	(3.4)	(3.2)
Low Price Scenario[1]	1011	1011	1011	1446	1487	1511	-14.2	-1.3	0.0	34.5	14.2	7.0	103.6	92.5	88.8	208.9	230.1	242.4
	-30.7	0.0	0.0	43.0	2.8	1.6							(1.6)	(1.3)	(1.2)	(2.5)	(2.5)	(2.5)
High Price Scenario[1]	1610	1644	1678	1446	1487	1511	9.0	7.5	7.0	5.0	7.0	7.0	249.2	256.7	275.9	241.6	249.3	262.6
	10.3	2.1	2.1	-13.8	2.8	1.6							(3.9)	(3.7)	(3.6)	(2.9)	(2.8)	(2.7)

[1]The Low and High Scenario results are based on the outputs of the FARI natural resource revenue forecasting model.

Table 3 Fiscal Rule Options for Burkina Faso

Rule/Indicator and Definition			Pros	Cons	Experience	Recommendation for BFA
Long term fiscal sustainability anchoring rules	**Permanent Income Hypothesis (PIH)**	Set non-resource primary deficit = "perpetuity" value of resource wealth (based on the present value of expected future resource revenues).	Preserves resources for optimal intergenerational equity. Can be modified with bounded annuity rather than perpetuity to mimic finite time horizon for resource wealth.	Computationally difficult, reliant on assumptions about discount rates and resource prices, as well as good information about future resource wealth.	Norway, Russia, Timor Leste, Azerbaijan (never observed)	Given the severity of development needs and the need for simple rules, long term fiscal anchors can be ruled out as realistic options.
	Net Wealth	Present value of non-resource primary balances (deficits) set to less or equal to PV of "net wealth" of govt (natural resource revenues + financial assets)	Same as PIH, but allows for larger deficits in earlier years to frontload investment spending and increase growth impact.			
Short to medium term fiscal anchoring rules	**Non-resource Primary Balance**	Set primary fiscal balance minus resource revenues as a percentage of non-resource GDP	Delinks spending from resource revenue volatility, can be combined with other long or short term term anchors: link medium term spending plans and associated deficits to conservative estimates of resource revenues over medium term, e.g. over 3-5 years; considering macro and institutional absorptive capacity constraints	Requires ability to calculate non-resource GDP (although Guinea used full GDP as a base, but this implies more volatility). Harder to communicate to public.	Papa New Guinea, Russia	Too operationally difficult because requires a calculation of non-resource GDP as a basis for determining annual spending constraint. Could eventually be a monitoring tool rather than a rule.
	Resource Price Based	To smooth spending the overall fiscal balance moves in tandem with swings in commodity prices and consequent resource revenues, according to a predetermined formula or independent committee.	Since using overall fiscal balance, easier to communicate publicly; don't need to calculate non-resource GDP. Can be combined with projections for resource production movements linked to prices.	Requires an automated process or independent committee to function.	Chile, Mongolia, Mexico, Trinidad and Tobago, Ghana. Nigeria had to abandon	Theoretically appealing, but operationally difficult and frequent decision-making vulnerable to political interference.
	Expenditure Growth	limits spending in real or nominal terms or in percent of non-resource GDP.	Easy to take into account absorptive capacity constraints; can be specified separate for current and investment spending; does not require an estimate of non-resource GDP.	Need to be a multi-year rule in order to handle lumpy investment spending.	Peru, Mongolia	Best option. Infrequent decision-making and easy to understand. Growth could be set for 5 year period, roughly equivalent with projected GDP growth.
	Non-resource Current Balance	Sets limits fiscal balance excluding investment spending and resource revenues.	Implicitly provides a set aside for resource revenues to be directed to investment spending, easy to understand, requires less precise information on resource revenue volatility and duration.	Creates incentives to blur definition of investment and current spending; must take into account that investment spending creates obligations for additional recurrent spending; must be combined with the fiscal balance rule to avoid resource booms resulting in large pro-cyclical investment spending.	Equatorial Guinea,	Requires frequent decision making and difficult to understand because implies running non-resource current surpluses, especially when budget support grants factored in.

Table 4. Simulation of an Expenditure Growth Rule

	2014	2015	2016	2017	2018	2019	2020	2021	Average
	(CFAF billions, unless otherwise indicated)								
(1) High production scenario + baseline prices									
Gold price	1372	1390	1418	1446	1487	1511	1541	1572	
Domestic revenues	1238	1410	1535	1674	1820	1981	2155	2350	
Grants	344	370	400	436	470	511	550	585	
Spending 27.8% of GDP	1780	1943	2118	2309	2517	2743	2990	3259	
Fiscal balance incl grants	-198	-163	-183	-199	-226	-251	-285	-324	
% GDP	-3.1	-2.3	-2.4	-2.4	-2.5	-2.5	-2.6	-2.8	-2.6
(2) Price shock with fixed fiscal balance									
Gold price	1372	1946	1985	1446	1190	1209	1541	1572	
Domestic revenues	1238	1583	1718	1674	1699	1853	2155	2350	
Grants	344	370	400	436	470	511	550	585	
Spending to maintain fiscal deficit at 2.6% of GDP	1780	2133	2315	2324	2403	2620	2983	3238	
% GDP	27.8	30.5	30.4	28.0	26.5	26.6	27.7	27.6	28.2
Fiscal balance incl grants	-198	-181	-197	-215	-234	-255	-278	-303	
% GDP	-3.1	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6	-2.6
(3) Price shock with 9% growth rule									
Gold price	1372	1946	1985	1446	1190	1209	1541	1572	
Domestic revenues	1238	1583	1718	1674	1699	1853	2155	2350	
Grants	344	370	400	436	470	511	550	585	
Spending with growth rule of 9%	1780	1940	2114	2305	2512	2738	2985	3253	
% GDP	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8	27.8
Fiscal balance incl grants	-198	13	3	-195	-343	-374	-280	-318	
% GDP	-3.1	0.2	0.0	-2.3	-3.8	-3.8	-2.6	-2.7	-2.1
Difference in fiscal balance (3)-(2) to save	0.0	193.6	200.2	19.5	-109.4	-118.6	-1.8	-15.4	
Cumulative	0.0	193.6	393.7	413.3	303.9	185.3	183.5	168.1	

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