



BURKINA FASO

SELECTED ISSUES

December 2016

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November 30, 2016

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SCALING UP PUBLIC INVESTMENT, GROWTH AND DEBT SUSTAINABILITY¹

A. Introduction

1. Burkina Faso, like many developing countries, has significant infrastructure gaps. In 2011, the World Bank estimated that the country would need to invest 11 percent of GDP in infrastructure over 10 years to close the gap with the continent's leading performer (Briceño and Dominguez, 2011). Nevertheless, according to the 2016 African Infrastructure Development Index, the country still lags in the bottom 20 performers for the continent. While natural resource wealth from gold and other commodity exports has the potential to accelerate the country's development, resource-rich developing countries that plan to increase public investment financed in part by external borrowing may carry substantial debt risk. For example, soaring oil prices in the 1970s allowed many oil-exporting countries to undertake ambitious investment projects, financed by oil revenues and external borrowing but the increase in interest rates and the collapse of oil prices in the 1980s contributed to a sequence of debt crises.

2. The central policy question is how best to make use of resource revenues to support the economy while maintaining debt sustainability. Many factors come into play in addressing this issue including: commodity prices; investment budget absorptive capacity, rate of return and efficiency of investment projects, private sector response, Dutch disease, availability of financing, government debt composition, efficiency of revenue mobilization and expenditure rules. While it is difficult to estimate quantitatively how these different elements knit together, the analysis here will make use of a model to examine the empirical evidence, provide a framework for policy advice and, above all, try to better understand the linkages between the underlying determinants. In doing so, it will focus on the macroeconomic effects of scaling up public investment in terms of the trade-offs associated with different financing options and will briefly address the impact of shocks to the resource sector.

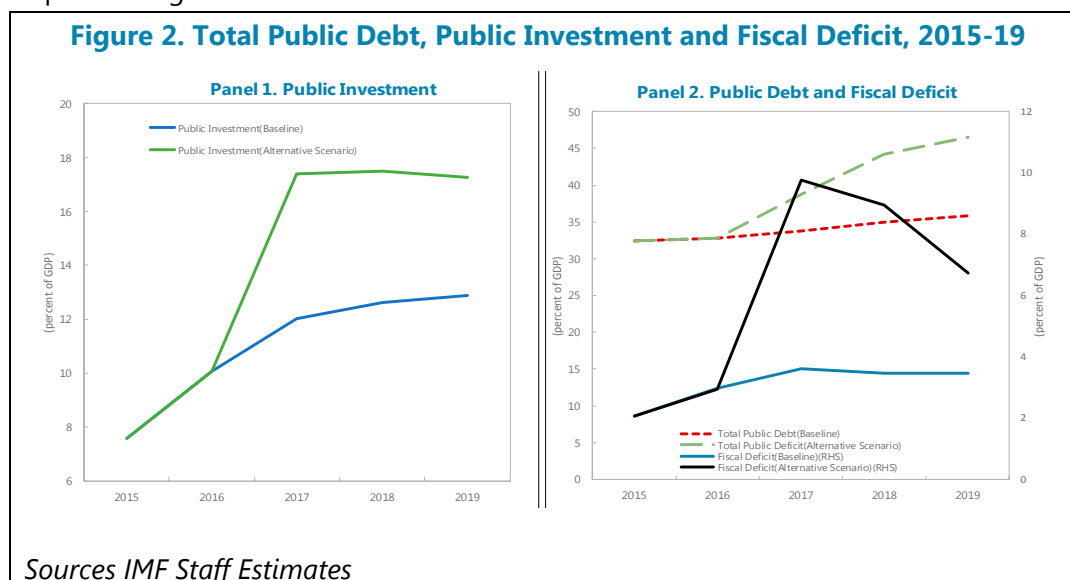
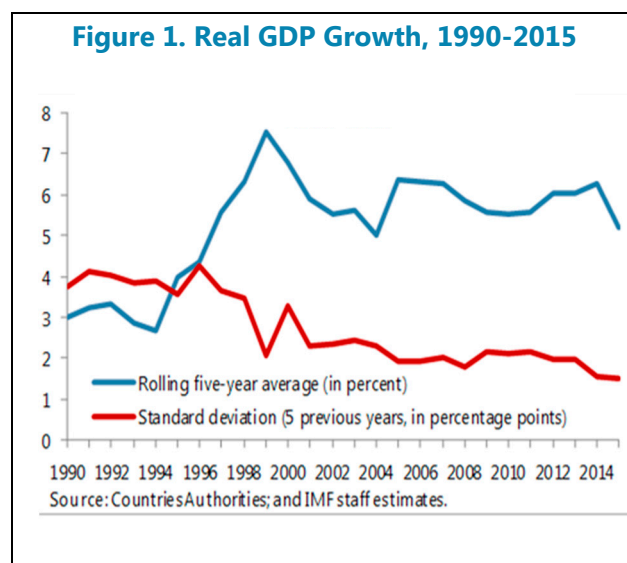
B. The Country Context

3. Prior to the sociopolitical events of 2014-15, Burkina Faso had experienced sustained growth. A recent IMF African Department publication² identifies Burkina Faso as one of the few non resource-rich low-income countries in Sub-Saharan Africa (SSA) that have been able to achieve consistently high growth rates over a 15-year period. The report identifies several determining factors underpinning this outturn: improved macroeconomic management, stronger institutions,

¹ This paper was jointly prepared by Liam O'Sullivan (African Department) and Jun Ge (Research Department).

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

increased aid, and higher investment in human and physical capital. Between 1990 and 2015, real GDP growth became steadily higher and less volatile (Figure 1) as the rolling five-year average real GDP growth rate rose steadily from 3.0 to 5.5 percent with a simultaneous decline in the rolling five-year standard deviation from 3.8 to 1.4 percent (Figure 1). Medium-term-oriented policies and important structural reforms have aimed at stabilizing growth, notably in agriculture, which is particularly vulnerable to weather shocks. Following the recent downturn, the trend growth rate is expected to resume and improve at 6-7 percent over the medium term as the sociopolitical climate fully stabilizes, investment increases and energy supplies improve. Although the share of gold mining in national output is low (mostly due to outdated national accounts that are in the process of being rebased), it nonetheless accounted for 58 percent of exports and 14 percent of fiscal revenues in 2014, down from a peak of 75 percent and 19 percent, respectively, in 2011-12, when international prices were nearly 30 percent higher.



4. Burkina Faso has a good track record of maintaining macroeconomic stability even in the face of severe shocks in recent years, but higher, more diversified, and more sustainable growth is essential in order to substantially reduce poverty and inequality. The authorities' National Economic and Social Development Plan (PNDES) aims to accelerate growth through a major increase in public investment, equivalent to about 17 percent of GDP annually until 2019 compared to 12.5-13 percent of GDP in the baseline and resulting in a substantial increase in the projected debt-GDP ratio (Figure 2). Investment will focus on energy and transportation infrastructure, which are considered the main bottlenecks to growth. The analysis aims at assessing the potential growth

impact of this ambitious scaling-up of investment and how the authorities can generate the necessary fiscal space to increase investment without jeopardizing macroeconomic stability. Estimates of the growth impact of public investment in the literature suggest a range of 0.2-0.5 percent onto the growth rate for each additional percentage point of public investment.

5. Investment budget execution has been a key concern for program management for many years but the issue has become critical in the past 2 years with execution rates falling to 67.3 and 75.5 percent in 2014 and 2015 respectively. The problem has been particularly acute as regards externally-financed investment. Over 2013-15, investment spending overall declined from 14 percent of GDP to just over half that level at 7.7 percent of GDP with both domestically financed and externally-financed investment declining sharply. Absorption capacity issues were certainly a factor in this underperformance as was the uncertainty regarding the political process in terms of its impact on externally-financed investment. The main issues identified as constraints to investment budget execution at the outset of the current ECF-supported program included redundant payment approval systems, a lack of automated processes and procurement delays. Many of the structural benchmarks defined for program implementation specifically targeted improvements in these areas with a limited degree of success. At any rate, these low rates of investment budget execution were significantly sub-optimal for a country with Burkina Faso's development needs.

6. Remaining capacity constraints and bottlenecks are deep-seated and broad-ranging. A recent FAD mission highlighted weaknesses at all stages of the investment process: there is no rigorous process to select projects, resulting in poor quality or delays due to insufficient preparation; ongoing issues with budget classification result in only about 44 percent of total expenditure in the investment budget actually resulting in fixed capital formation; procurement processes are unduly long and complex; and execution monitoring and reporting remains inefficient. As a result, there has been increasing recourse to exceptional procedures such as "*deblocage de fonds*" and single sourcing for procurement which are difficult to monitor and not cost-efficient. The state's audit authority (ASCE) has also identified domestic arrears amounting to about 1 percent of GDP, linked at least in part with lack of control over project execution or with invalid contracting or procurement procedures. The mission recommended a battery of specific measures to improve project selection and execution, such as better integration of the capital budget into the overall budgetary architecture and clearer assignment of responsibilities for projects critical to structural transformation. The authorities have also expressed interest in a Public Investment Management Assessment (PIMA) to be held as soon as possible to develop more comprehensive recommendations to further improve project selection and implementation in the long term with a view to bringing about a permanent improvement in performance in this critical area.

C. Impact of Public Investment Scaling-Up: Principles and Underlying Determinants

7. A key issue in determining the outcome of any scaling-up initiative is the efficiency of public investment. Each additional unit of investment spending does not necessarily result in an equivalent unit of productive public capital. In developing countries high productivity of infrastructure can coexist with low returns to public investment because of inefficiency in investing

due to corruption and scarce technical capacity but investment efficiency can drop also because abrupt investment scaling-up that encounters absorptive capacity constraints (supply bottlenecks and lack of complementary infrastructure are typical examples). Insufficient maintenance can also shorten the life of existing capital. Accounting for the operations and maintenance expenditures of installed capital is crucial for assessing the growth effects and debt sustainability of public investment scaling-up. It can therefore be assumed that the depreciation rate increases proportionally to the extent to which effective investment fails to maintain existing capital.

8. Crowding in (or crowding out) is another important issue to consider as private investment responds both to interest rates and tax rates, as well as to the higher rates of return generated by more public capital. Higher public capital raises the marginal product of private capital but when the government uses domestic resources to invest, these resources are not available for private investment and consumption (crowding out). Moreover, by creating distortions, tax increases to finance the scaling-up efforts or reductions in transfers lower consumption and welfare. A further consideration is that recurrent infrastructure costs should be covered at least partially by user fees: failure to do so exacerbates debt sustainability risks. The final outcome depends on the interaction of these often conflicting influences. In the long run, crowding in will occur if the projects concerned are of good quality, and address bottlenecks to private sector development, such as essential road or energy infrastructure. However, during the transition, crowding out may dominate, especially early on and especially if there is not enough foreign financing available.

9. A conservative approach to scaling up would set moderate targets for public investment bearing in mind that public capital and non-resource output growth do not increase until the medium-term. A gradual approach would develop spending plans while anticipating some of the increase in non-resource output while an aggressive approach would anticipate future output growth with a big immediate increase in public investment spending. Due to absorptive capacity constraints, the aggressive approach may only deliver an accumulation of public capital and output comparable with the gradual approach. Under a conservative approach public debt will increase less as a share of GDP and even decline over the longer term, thus implying no future fiscal adjustment. Under a gradual approach public debt rises gradually to a peak in the medium term, then declines over the longer term to more sustainable levels as public capital builds up and non-resource output expands, with the result that any required fiscal adjustment is limited. An aggressive approach implies a much bigger build-up of public debt in the medium term, and would require a painful fiscal adjustment in order to service the accumulated debt.

10. If, over time, institutions, governance, and management practices are improved public investment becomes, on average, more efficient and absorptive capacity constraints less binding. If investment projects are better designed, selected, and implemented, the return of investment could increase: it will increase productivity with a more positive impact on capital stock accumulation, growth and incomes. Good governance and careful project selection and execution are key determinants of the impact public investment has on growth and thus optimizing the

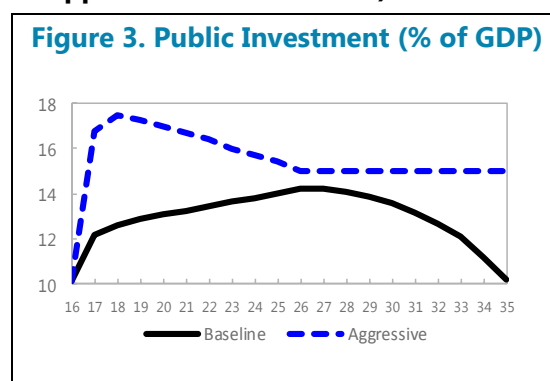
effectiveness of investment is crucial to maximize its positive effects and limit the build-up of debt needed to fund such investment.

11. Natural resource revenue has the potential to substantially increase government revenue, but this is inherently uncertain and volatile. A gradual public investment scaling-up anticipating some but not all future potential revenue would be appropriate given Burkina Faso's infrastructure investment needs and the uncertainty regarding mining production/revenue. This would help translate mining revenues into non-resource growth without compromising fiscal stability. Due to absorptive capacity constraints, an aggressive approach is not likely to yield tangibly better growth outcomes and poses threats to debt sustainability.

D. Model Simulations (DIGNAR)

12. The analysis includes a model estimation of the macroeconomic implications of the PNDES scenario compared to staff's baseline projections using the Debt, Investment, Growth and Natural Resources (DIGNAR) model. The model, developed by the IMF's Research Department, combines the debt sustainability framework developed in Buffie et al. (2012) with the natural resource model in Berg et al. (2012). It is particularly well-suited for assessing the investment-growth nexus together with debt sustainability in resource-rich developing countries that, like Burkina Faso, intend to scale up public investment, financed by a combination of borrowing and resource revenues. The analytical framework includes a natural resource sector in addition to traded and non-traded goods sectors, and is calibrated to reflect important features of developing countries, including varying degrees of investment efficiency, limited absorptive capacity, Dutch disease, and a detailed fiscal specification reflecting the operation of fiscal buffers. Taking resource revenues and public investment policy as given, the framework can simulate the macroeconomic outcomes of scaling up public investment, accounting for the investment-growth linkages and the feedback effect on non-resource revenue. DIGNAR models were previously used to assess public expenditure scaling-up options in several countries, notably Chad, the Republic of Congo, Mozambique and Kazakhstan, as well as for a group of four fragile countries in West Africa (Deléchat et al., 2015, IMF, 2015, IMF, 2014, Melina and Xiong, 2013, and Minasyan and Yang, 2013).

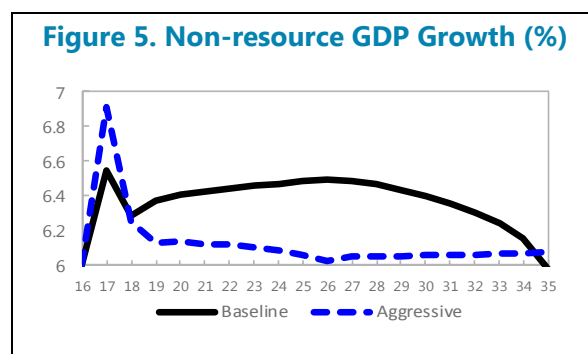
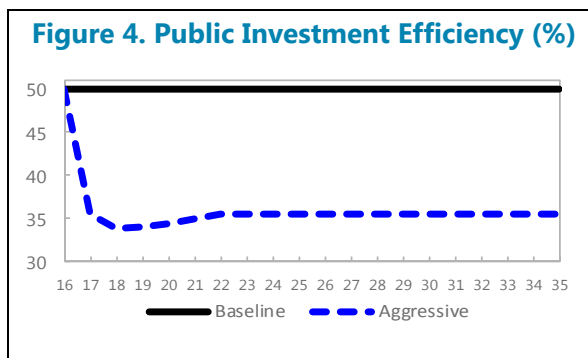
13. The model analysis sets out to compare the impact of PNDES scaling up compared to a baseline projection which is essentially defined by the debt sustainability analysis for the sixth ECF program review (corresponding to the gradual approach outlined above). Under the scaling-up scenario (which represents the aggressive approach to scaling up described above), the profile of public investment is defined by the authorities' projections under the 2017 budget proposal which would raise capital spending to 17 percent of GDP. The ratio of investment spending to GDP is assumed to decline gradually to 15 percent of GDP by 2026 and to remain at that level until the end of the simulation period in 2035. The trajectory for the



investment budget in the baseline is considerably less ambitious with investment expected to reach 12 percent of GDP in 2017 and rise progressively to 14 percent of GDP in 2026 before declining gradually towards 10 percent of GDP by 2036 (Figure 3).

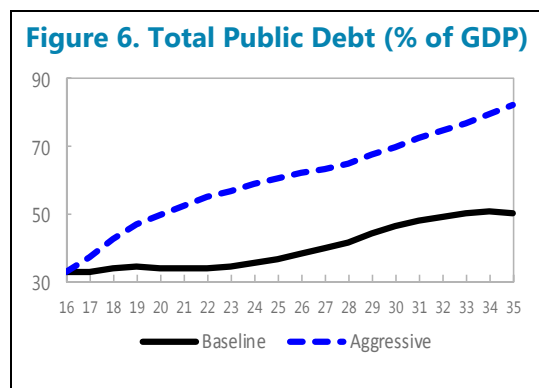
14. A key feature of the assessment is the role of the investment efficiency parameter, which for analytical purposes is assumed in the PNDES scenario to drop to 35 percent, from the 50 percent efficiency rate assumed in the baseline.

The rationale for this assumption is that an aggressive increase in public investment spending will immediately encounter the absorption capacity constraints holding back investment spending historically and will result in a decline in the quality of spending relative to the baseline. These constraints will take the form (inter alia) of the lack of complementary infrastructure, insufficient provision for maintenance and supply bottlenecks (Figure 4). GDP growth is consequently lower in the long run than in the baseline due to lower productivity in both the traded and nontraded sectors resulting from the relatively lower increments to the public capital stock (Figure 5).



15. The results of the simulation indicate that long-term debt sustainability would be compromised by the increase in spending and borrowing implied by the PNDES scenario.

Figure 6 indicates that the debt/GDP ratio would increase beyond the limit defined by the WAEMU criteria by the end of the simulation period (the 70 percent limit would be breached sometime around 2030). By contrast, the baseline projects a debt/GDP ratio stabilizing at around 50 percent of GDP by the end of the simulation period. Welfare would also be lower under the scaling up scenario as private consumption levels would ultimately decline by 7 percent relative to baseline levels in response to decline in disposable incomes resulting from the higher levels of taxation needed to maintain fiscal sustainability.



E. Sensitivity Analysis: Risks to the Baseline from Resource Revenue Volatility or Fiscal Policy

16. The analysis also includes 2 variants on the baseline scenario. In the first, the price of gold is assumed to drop by about 30 percent relative to the baseline while the second variant assumes that there will be no increase in taxation to finance the higher investment spending in the baseline. This is motivated by the fact that, in many countries, there may be political economy constraints that limit the feasibility of tax increases. In the gold price scenario, the loss in resource revenues (from 15 to 10 percent of total revenues) would result in an increase in the debt/GDP ratio by around 12 percentage points (Figures 7 and 8). There would also be a slight decline in GDP and in welfare under this variant due to increased indirect taxation to make up for revenue shortfalls.

17. As regards the variant where the tax rate is fixed, the principal effect is the increase in the debt-to-GDP ratio (Figure 9) by even more than in the scaling-up case. Public debt would reach almost 90 percent of GDP by 2030, well beyond the level defined by the WAEMU criterion. This underscores the importance of ensuring adequate measures to maintain fiscal sustainability in the context of scaling-up initiatives. In the standard model approach, consumption taxes are set to increase to close off the fiscal financing gap arising from scaled-up investment spending not covered by additional borrowing. When the tax rate cannot adjust and is fixed (Figure 10) at its initial level, then additional (non-concessional) borrowing is required. The increase in the debt-to-GDP ratio is a full 35 percentage points above the baseline value and 3 points above that of the scaling-up scenario assuming partial fiscal adjustment. Moreover, the increase in debt is accounted for by increases in both external non-concessional and domestic debt which emphasizes the importance of continued vigilance in the area of debt management.

Figure 7. Resource Revenue (% of tot. rev.)

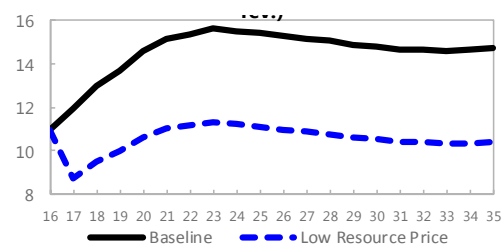


Figure 8. Total Public Debt (% of GDP)

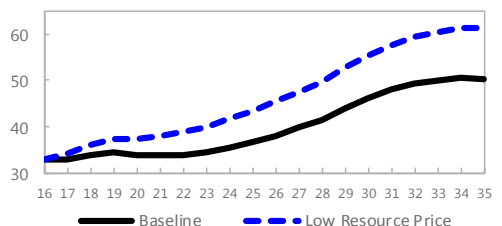


Figure 9. Total Public Debt (% of GDP)

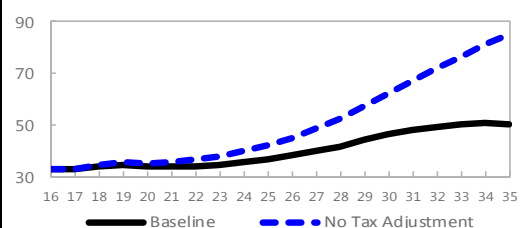
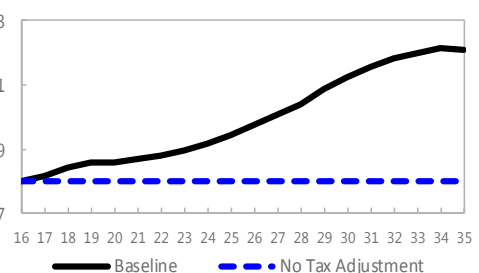


Figure 10. Consumption Tax Rate (%)



F. Conclusions

18. The results point to some clear conclusions for best practice in scaling up public investment. “Big-push” investment efforts, while designed to accelerate growth, are likely to run up against significant absorption capacity constraints. These constraints will diminish the efficiency of investment spending and result in a lower rate of public capital accumulation and productivity increase than when a more measured approach is adopted. The empirical evidence from the experience of many countries (including a recent paper on Burkina Faso (Kabedi-Mbuyi et al., 2016)) suggests that the results of aggressive scaling-up initiatives are mixed. Model simulations for the aggressive scaling-up scenario implied by the PNDES indicate that it is likely to be inconsistent with long-term fiscal and debt sustainability. In addition, there are non-negligible risks to even the moderate gradual scaling up scenario outlined in the baseline stemming, for example, from commodity price shocks. The central policy lesson in this regard is that good investment budget management is one of the keys to prospects of success in the implementation of the PNDES. Recent initiatives undertaken by the Burkinabè authorities will help in this respect, particularly the revised procurement code which will contribute to significantly improving investment budget execution. Building on the results of the Public Investment Management Assessment (PIMA) exercise to be launched in the coming months to strengthen the key institutions which shape the planning, allocation, and implementation of public investments will also be critical: IMF research suggests that strengthening these institutions could close up to two-thirds of the public investment efficiency gap (IMF, 2015).

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THE WAGE BILL IN BURKINA FASO—PAST TRENDS AND CHALLENGES AHEAD¹

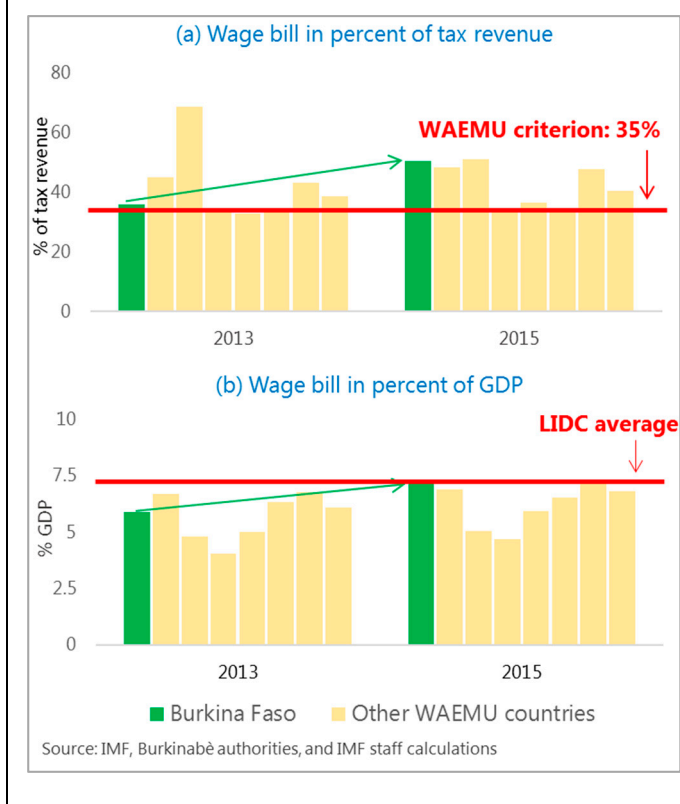
The government wage bill in Burkina Faso has increased rapidly since the turn of the century, reflecting a large expansion in government employment. The main challenge ahead is to continue expanding government services in key sectors like education and health, while ensuring the wage bill remains sustainable in the medium-run. This can be achieved by adopting a medium-term strategy to control wage bill growth, focused on rationalizing hiring, improving worker mobility, and aligning compensation with individual productivity.

A. Short-Term Evolution and Challenges

1. The wage bill has increased rapidly in recent years. The government wage bill as a share of total tax revenue worsened dramatically from 35.8 percent in 2013 to 50.4 percent in 2015, as tax collections slowed down due to lower output growth and political disruption.² This ratio is now well above the convergence criterion of 35 percent set by the WAEMU.³ At the same time, the public wage bill came to represent 7.3 percent of GDP in 2015, a large increase relative to the 5.9 percent of GDP recorded in 2013, although still close to the average observed in low-income developing countries (Figure 1).

2. Pressures to increase public sector wages and the incorporation of contractual workers as civil servants have contributed to the rapid increase in the wage bill. The new civil service code adopted in November 2015 (Law 81) included a revised wage grid, and incorporated contractual staff as permanent civil servants, a long-standing

Figure 1. Wage Bill in Burkina Faso and the WAEMU



¹ Prepared by Federico Lima (Fiscal Affairs Department).

² The government wage bill refers to the central government, and includes all permanent and contractual government workers. The central government includes the public health, education and police sectors, but excludes local governments and state-owned enterprises.

³ On January 2015, the WAEMU Heads of States adopted a new set of convergence criteria to be met by 2019. These include a target for the government wage bill as a share of tax revenue to be less or equal than 35 percent – see IMF (2016c).

political issue. The implementation of the new code and other sector-specific wage agreements (e.g., with the judiciary) permanently increased the wage bill by an estimated 0.4 percent of GDP in 2016.⁴

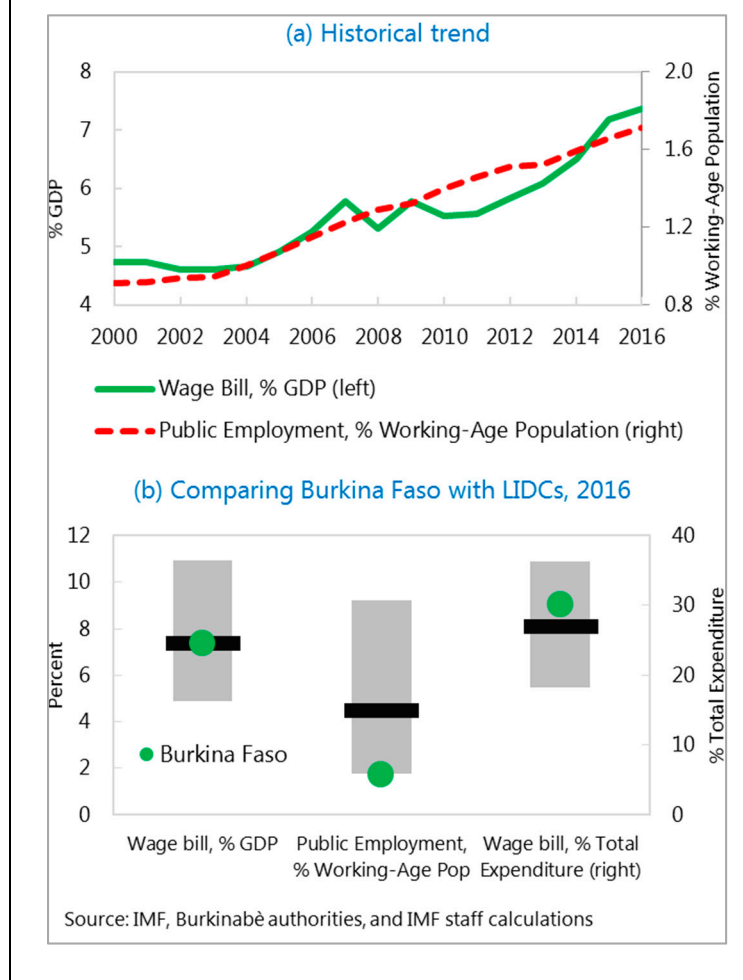
3. The ratio of the wage bill as a share of tax revenue is now beginning to recover due to stronger economic performance, but wage and employment pressures remain important. The wage bill is expected to represent 46 percent of tax revenues and 7.4 percent of GDP in 2016, helped by the consolidation of the political transition, stronger output growth, and higher revenue mobilization. The authorities' efforts to moderate future wage increases are expected to bring the wage bill down to 38.3 percent of tax revenues and 7.2 percent of GDP in 2017. However, this evolution is predicated on an ambitious aim to contain the growth of the nominal wage bill to 6 percent in 2017. Given that public employment growth has averaged 7 percent per year in recent history, that target implies a decrease in average nominal compensation of about 1 percent in 2017, which may be difficult to achieve.

B. Long-Term Trends and Challenges

4. The public wage bill has grown faster than GDP since the start of the century, driven by a large increase in public employment. As the top panel of Figure 2 indicates, the public wage bill grew from 4.7 percent of GDP in 2000 to 7.4 percent of GDP in 2016. This increase was matched by a steady increase in public employment, which went from 0.9 to 1.7 percent of the working-age population over the same period.

5. Given the higher public employment levels, the authorities' efforts to contain wage growth were insufficient to curb the expansion of the wage bill. Decomposing the change in the wage bill over this period, the increase in public employment contributed to increase the wage bill ratio by 3.6 percent of GDP. At the same time, average public sector compensation declined,

Figure 2. Wage Bill and Employment in Burkina Faso



⁴ As of 2014, there were 58,074 permanent civil servants and 80,075 contractual staff.

which mitigated the change in the wage bill by about -0.9 percent of GDP.⁵ This decline in compensation reflects the efforts of the authorities to contain wage growth, as well as changes in the composition of employed civil servants, as new hires tend to start at lower employment categories (especially in the 2000s).

6. However, public sector compensation in Burkina Faso remains fairly high. Like other countries in the region, the government provides attractive compensation relative to the rest of economy. Government wages are about eight times larger than GDP per capita, and represent nearly twice the average urban household consumption level. After accounting for differences in worker and job characteristics, government salaries are about 4 to 20 percent higher than private sector salaries (IMF, 2016d; Fachaud, 1995), despite civil servants also enjoying a much more stable and guaranteed career path (Table 1).⁶ Overall, this correlates with the generally high quality of public employees and a well-functioning administration, making it possible for the government to attract and retain talent.

Table 1. Government Compensation in Burkina Faso	
Compared against...	Government compensation is higher by...
GDP per capita	668%
Average private sector salary	4% to 20%
Average household consumption expenditure (urban)	90%
Source: IMF, Burkinabè authorities, FAD Public-Private Sector Wage Premium Dataset, Fachaud (1995), and IMF staff calculations	

7. The combination of strong employment growth and relatively high public compensation creates wage bill sustainability risks, and reduces available resources for public investment. Despite the strong increase of the last 15 years, the share of public employment in working-age population in Burkina Faso remains low relative to other low income developing countries (see Figure 2). Public employment will continue to grow due to continued public investment in education and health, an increasingly qualified young population, and social pressures on the government to tackle urban underemployment. Combined with high average compensation, this will lead to a large increase in wage commitments. Therefore, although the current wage bill to GDP ratio of 7.4 percent is close to the LIDC average, this ratio could increase rapidly in the

⁵ The change in the wage bill to GDP ratio can be separated into two components, one due to the change in employment per capita, and the other due to the change in salaries relative to GDP per capita. Letting n_t be employment per capita in year t , s_t be the ratio of average public salaries to GDP per capita, and $W_t/Y_t = n_t \times s_t$ be the wage bill to GDP ratio, we have

$$\frac{W_{2016}}{Y_{2016}} - \frac{W_{2000}}{Y_{2000}} = \underbrace{\frac{(n_{2016} - n_{2000}) \times s_{2016}}{\text{contribution of employment}}}_{\text{contribution of employment}} + \underbrace{\frac{(s_{2016} - s_{2000}) \times n_{2000}}{\text{contribution of salaries}}}_{\text{contribution of salaries}}$$

In the case of Burkina Faso, the wage bill ratio to GDP increased by just over 2.6 percent of GDP between 2000 and 2016, with a positive contribution from employment (3.6 percent), and a negative contribution from salaries (-1 percent).

⁶ Government wages are about 70 percent larger than private sector wages on average, but this partly reflects higher education achievement among government workers.

medium-term. By 2025, the ratio of public employment to wage-age population is expected to reach 2.3 percent, which would increase the wage bill to 10.1 percent of GDP if current wage levels are maintained.

C. Reform Options

8. In recent years, the authorities have implemented a number of reforms aimed at containing the wage bill. These have included the completion of an administrative census in 2012; the adoption of biometric enrolment since 2013; the improvement in IT capacity to allow for more automated payroll management and review processes; the implementation of cash payment operations in 2015 to identify ghost workers and other irregular payments; and the adoption of legislation in 2015 to make it compulsory to state the identity and identification number of incoming and outgoing officials on appointment documents to allow for automatic updating of their salary status.⁷

Table 2. Managing the Public Wage Bill

	Employment	Compensation
Short-term Reforms	<ul style="list-style-type: none"> ● Attrition ● Departure incentives ● Reduce staff hours 	<ul style="list-style-type: none"> ● Ad hoc wage freezes or cuts ● Freeze career progressions
Structural Reforms	<ul style="list-style-type: none"> ● Improve HR management ● Eliminate redundancy and sectoral overlap 	<ul style="list-style-type: none"> ● Consolidate benefits with base pay ● Rationalize benefits ● Link salaries with performance

9. The challenge ahead is to continue expanding government services in sectors like education, health and security in an affordable way. In Burkina Faso, as other developing and emerging economies, the government has ambitious plans to expand education and health services across the country. To this end, it will be important to set wages that attract and motivate qualified civil servants, and to provide incentives for employees to locate in rural or less developed areas of the country. However, this must be done in a way that ensures the wage bill remains sustainable, and compatible with the authorities' ambitious PNDES investment plan. This section presents a

⁷ The administrative census was conducted between End-May and mid-July 2012 and identified 113,844 civil servants compared to a SIGASPE (payroll database) count of 120,420 (Staff Report, January 2013). A year later, the biometric and SIGASPE databases were reconciled. Through this effort, 125,319 out of 138,395 employees were enrolled as of August 31, 2013, broken down as follows: 117,574 active employees, 5,293 seconded employees, 841 employees on call, 1,611 on permanent contract assignment, and 13,076 unenrolled and unaccounted for employees (Staff Report, September 2013).

number of compensation and employment reforms that have been considered in other countries, and discusses their applicability to the current context in Burkina Faso (Table 2).⁸

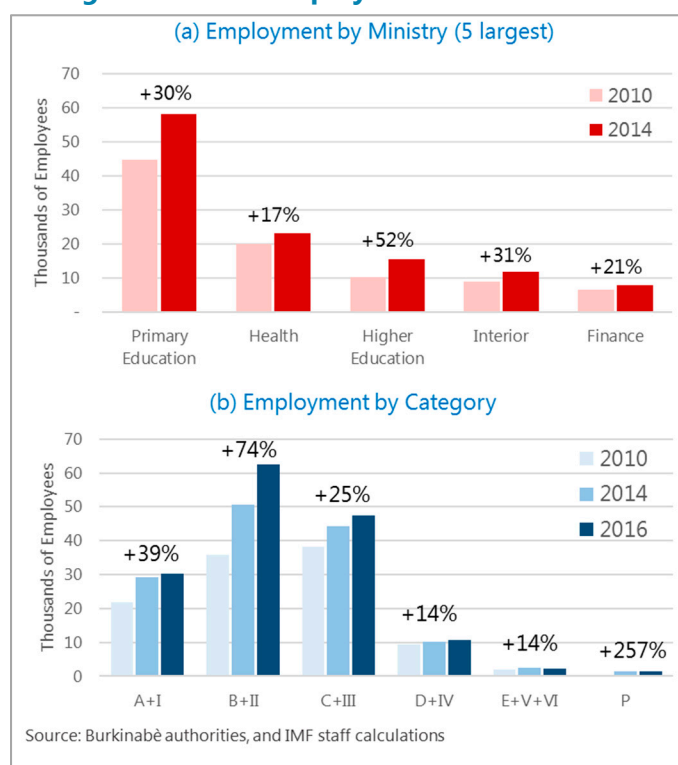
Employment Reforms

10. Attrition measures and departure incentives can moderate the increase in wage bill, but often hurt the quality of public services. Attrition-based measures such as imposing replacement rules (e.g., only one hire per two exits) or encouraging voluntary exits can mitigate public employment growth, as seen recently in the cases of Belgium, Ireland, Portugal and Romania. However, such wide-ranging measures can also hurt service delivery (e.g., Romania), and affect future capacity in sectors like education and healthcare where training, experience, and succession plans are crucial. The longer term savings are also unclear since pressures to resume hiring mount when key skilled personnel are lost (Haltiwanger and Singh, 1999). Instead, successful reforms combine attrition with the elimination of redundant positions, and stronger focus on worker mobility and retraining, as seen in Ireland.

11. Public employment growth in Burkina Faso was more pronounced in the education and security sectors, and amongst mid-level civil servants.

The top panel of Figure 3 examines the growth of public employment in the 5 largest ministries. The secondary and higher education sector grew fastest, followed by primary education and security services. The bottom panel of Figure 3 looks instead at employment growth by civil service category. These range from “E” to “A”, with upper-level managers included in a separate category “P”.⁹ Public employment growth was strongest amongst mid-level and managerial categories, and in particular amongst contractual workers, which accounted for virtually all change in public employment between 2010 and 2014.

Figure 3. Public Employment in Burkina Faso



⁸ This section builds on a recent IMF Board paper on managing public employment and compensation (IMF 2016a). The case studies referenced in the text are described in IMF (2016b).

⁹ Categories I to VI apply to contractual workers, and will be phased out by December 2016 as Law 81 is implemented. For simplicity of exposition, civil service categories E to A were merged with their closest contractual categories.

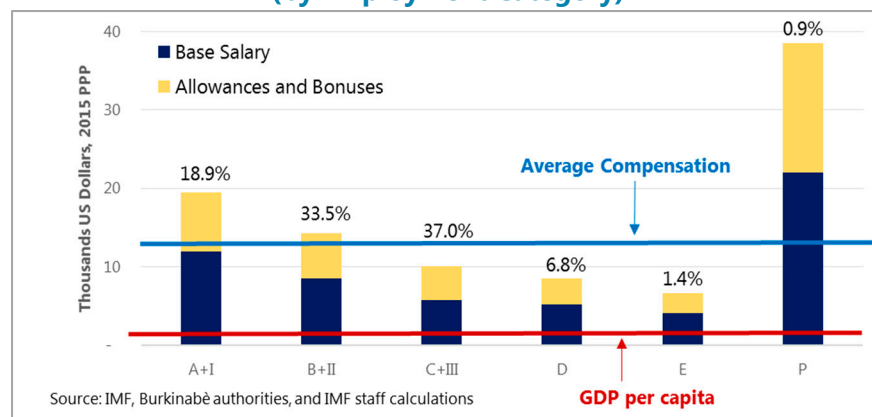
12. The authorities should design a medium-term strategy to contain the wage bill, focused on rationalizing hiring, eliminating sectoral overlap, and promoting worker mobility.

Going forward, the priority should be to ensure that increases in public employment reflect actual service needs. This will require a medium-term plan of employment needs by ministry and by function. It may also involve downsizing or merging overlapping departments and positions, as well as identifying areas where the private sector rather than the government could take the lead. In addition, the authorities

should focus on removing legal and practical impediments to worker reassignment and retraining, to make it easier to redeploy personnel across departments and geographic areas. Finally, moving towards a position-based employment system, rather than a career-based system, would allow greater flexibility in adjusting employment levels and

composition, and would mitigate the pressure for wage increases as the current workforce ages. These reforms imply a significant coordination effort across government departments, and therefore require some time to be implemented (e.g., during recent reforms in Ghana and Côte d'Ivoire, new employees often failed to receive wages for several months because of poor coordination across hiring, budgeting, and payroll departments, as described in IMF (2016b)).

Figure 4. Average Compensation and Employment Shares (by Employment Category)



Compensation Reforms

13. Wage or career progression freezes are effective in the short-term, but imply substantial long-term costs. Nominal wage freezes, or limiting wage increases below real GDP growth or inflation, can be effective in restraining wage pressures, as seen in the recent experiences of Côte d'Ivoire, Kenya, Jamaica, Portugal and Romania. These reforms are typically implemented across-the-board, thus affecting all government workers. However, they can affect morale and the government's ability to attract and retain qualified workers. In addition, such measures disrupt existing wage adjustment mechanisms and distort the structure of compensation, as has been the case in Côte d'Ivoire and Senegal, where prolonged base wage freezes were partly offset by rising pay supplements and bonuses. Given the importance of increasing publicly-provided services in sectors like health and education, more structural reforms focused on achieving wage bill sustainability in the medium-term should be considered instead.

14. Allowances represent almost half of total public compensation in Burkina Faso. Allowances can serve useful purposes such as attracting staff in areas or sectors with skill shortages.

However, they can also be used as a means of getting around wage caps, and to make overall compensation levels less transparent. Figure 4 decomposes total compensation into base salary and allowances for each category of civil servant from A to P. The number and extent of allowances by employment category is explicitly defined in the law, and Figure 4 shows they constitute 40 percent of the average total compensation in each employment category.

15. Adopting a unified pay scale would bring limited benefits since allowances are well-regulated in Burkina Faso. Recent reforms in countries like Ghana and Zambia have focused on consolidating allowances and bonuses into base pay and mapping various professional categories and sectors to a common base pay schedule. However, in practice the allowance structure in Burkina Faso is not too different from a unified pay scale, with allowances behaving as an informal, proportional extension of the base salary. This implies that the gains in transparency and lower complexity from consolidating base salaries and allowances would be limited. Given the up-front costs of these reforms (e.g., as seen in Portugal and Ghana), they should not be seen as a priority reform in Burkina Faso at this point.

16. Instead, performance-based allowances can be used to align public sector compensation with productivity, especially in areas like education, health, and tax administration. Going forward, the government could link some of these allowances to individual performance, building on successful reforms implemented in other countries, such as the Philippines. This reform tends to be more successful when applied to jobs with quantitative outputs (e.g., teachers, health care providers, tax administrators, public infrastructure), and performance criteria are set objectively and in advance. A stronger link between pay and individual productivity would deliver efficiency gains, help moderate the increase in the wage bill, and can be well received by employees (e.g., a World Bank survey found that most civil servants in the Philippines had a positive opinion of performance pay). However, it also needs to be carefully designed to ensure performance outputs truly reflect the quality of public service provision, and are not subject to gaming (see IMF, 2016b).

Suggested Short-Term Policies

17. The authorities could conduct job audits as a first step towards a medium-term employment strategy, as well as continue reforms on payroll management and control. As a first step, job audits could be conducted to provide a basis for a future functional review of the public administration, and to identify sectors where performance pay could be implemented or expanded. In addition, it is important to continue progress in automating payroll payments, moving towards non-cash payments, and conducting an administrative census and allowances reviews at regular intervals. This will help keep the payroll database up to date, and minimize undue payments.

Box 1. Lessons from Wage Bill Reform in Côte d'Ivoire

A wage freeze was not an effective tool to contain the wage bill over the medium term. To control the wage bill, Côte d'Ivoire froze wages and promotions in the civil service for over 20 years. However, this wage freeze did not stop the wage bill from growing, and had several drawbacks. First, it reduced purchasing power among civil servants. Second, it created inequalities, as targeted wage increases throughout those years benefited certain categories of employees more than others, and bonuses and allowances were granted without a coherent strategy. Finally, it simply postponed larger adjustments to a future date, with social unrest forcing the authorities to implement large wage increases and to recognize significant wage arrears in recent years.

Table 1. Key Historical Trends

	2005	2015	Driven by:
Wage Bill (percent of GDP)	6.3	7.4	<ul style="list-style-type: none"> • Higher employment • Wage increases
Government Employment (percent of working-age population)	1.5	2.0	<ul style="list-style-type: none"> • Education and Health • Security services

The government should centralize wage bill management rather than allocate human resources and financial management to separate ministries. In Côte d'Ivoire, the payroll is managed by the ministry of finance, and the civil service ministry regulates hiring and terms of employment. This leads to inefficiencies such as inconsistent worker headcounts across the two ministries, and means that human resource processes (including hiring, promotions, and retirements) are not integrated in budget preparation. Centralizing wage bill management helps the government control the various drivers of spending such as recruitment needs, retirement projections, promotion policies, and compensation structure.

A medium-term strategy is helping put the wage bill on a sounder footing. In 2014, the Ivoirian authorities adopted a medium-term strategy for 2014–2020 to lower the wage bill from 44 to 35 percent of tax revenue. Both the civil service ministry and the ministry of finance worked jointly on its design. The new strategy reorients wage policy toward more durable measures, including cancelling wage arrears, reducing recruitment targets, increasing employee pension contributions, reinstating automatic career progression, and introducing a revised wage grid. It also provides a formal framework for wage bargaining with social partners.

Effective medium-term strategies require strong political will. The new strategy in Côte d'Ivoire sharply increased the wage bill in 2014–2015, while postponing wage reduction measures to the end of the decade. The strategy also relies on optimistic projections (real GDP growth of 10 percent) that may not be attainable. This increases the risks of fiscal slippages, which may hurt the effectiveness of reform later on.

Box 2. Lessons from Wage Bill Reform in the Philippines

Performance pay is used to enhance public service delivery and accountability. The Philippines government introduced a performance-based bonus system in 2012 that replaced uniform bonuses that were previously given to all civil servants. The main goal was to ensure that ministries and departments fulfill annual targets, and to encourage good performance at the individual level. As preconditions to obtain a bonus, departments had to meet 90 percent of their agreed performance targets for the year, and had to comply with governance guidelines.

Table 1. Performance-Based Bonus Calculation
(as a share of base bonus payment)

	Best Performer (10 percent)	Very Good Performer (25 percent)	Good Performer (65 percent)
Best Department (10 percent)	7x	4x	2x
Very Good Department (25 percent)	5x	2.7x	1.4x
Good Department (65 percent)	3x	2x	1x

Performance pay is based on the joint performance of departments and individuals. Within ministries, departments are ranked into three categories: a “Best” rating was given to 10 percent of departments, a “Very Good” rating to 25 percent, and a “Good” rating to the rest. Employees are also ranked into three categories. Each employee then receives a bonus that depends on their ranking, and the ranking of their department (Table 1). For example, a worker ranked as “Best” in a “Very Good” department received 5 times the base bonus payment, whereas someone ranked as “Good” in the same department received only 1.4 times that.

Performance pay is well-accepted by staff, but is more effective when jobs have measurable outputs. According to a World Bank survey, most government staff in the Philippines had a positive view of performance pay, and thought setting and monitoring performance targets was consistent with serving the public. However, in some cases government employees complained that performance ratings could be subjective and unfair. In other cases, staff thought performance targets were subject to gaming – for example, an indicator such as the number of advisories issued can be easily manipulated by splitting one advisory into two. As a result, the performance pay system was more effective and accepted in sectors where performance targets can be easily measured and independently verified (teachers, health workers, infrastructure projects, etc.).

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