



ALGERIA

SELECTED ISSUES

December 2014

This Selected Issues paper on Algeria was prepared by a staff team of the International Monetary Fund as background documentation for the periodic consultation with the member country. It is based on the information available at the time it was completed on November 13, 2014.

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ALGERIA

SELECTED ISSUES

November 13, 2014

Approved By
**The Department of
Middle East and
Central Asia**

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MEETING ALGERIA'S FISCAL CHALLENGES¹

Although Algeria enjoys substantial fiscal savings, fiscal policy is currently on an unsustainable path. Under current projections, Algeria will deplete its financial savings in the long term, leaving future generations worse off. To restore fiscal sustainability and ensure intergenerational equity, Algeria will need to undertake significant and sustained fiscal consolidation in the coming years. Successful fiscal consolidation will depend on both mobilizing more revenues and rationalizing expenditures. If done right, fiscal consolidation can restore sustainability while minimizing the impact on economic growth and enhancing equity.

A. Introduction

1. **In recent years, the sustainability of Algeria's fiscal policy has come into question.** In the decade leading up to the global financial crisis, Algeria recorded consistent fiscal surpluses, mainly thanks to rising oil prices. These surpluses allowed Algeria to accumulate substantial fiscal savings and to repay nearly all external debt, including to the IMF. Since the crisis, however, government spending has surged in an effort to counter the effects of the crisis and address social demands amid regional upheavals. Five consecutive years of fiscal deficits, coupled with declining hydrocarbon exports and a relatively short time horizon for hydrocarbon resources, have increased fiscal vulnerabilities and placed fiscal policy on an unsustainable path.
2. **In the absence of significant fiscal adjustment, Algeria will deplete its financial savings in the long term, leaving future generations worse off.** In a baseline scenario that assumes some fiscal adjustment, Algeria is nevertheless projected to become a net borrower within 10 years, implying less scope for spending on future generations. To avoid this outcome, and to ensure intergenerational equity, Algeria will need to undertake ambitious fiscal consolidation in the coming years—much more ambitious than the limited fiscal consolidation achieved in 2013.
3. **Algeria's challenge is twofold: mobilizing more revenues and rationalizing expenditures.** On the revenue side, Algeria is overly dependent on hydrocarbon revenues, which fluctuate with volatile oil prices and have declined in recent years as hydrocarbon exports have slumped. Given the relatively short time horizon for hydrocarbon resources, ensuring fiscal sustainability will require increasing nonhydrocarbon revenues. On the expenditure side, Algeria must contain current expenditures while preserving growth-enhancing capital spending. Moreover, spending should be reoriented in a way that stimulates private sector activity and protects vulnerable groups.
4. **This paper explores options for Algeria to meet its fiscal challenges.** Section B reviews recent trends in Algeria's fiscal policy and discusses the size of the adjustment necessary to achieve

¹ Prepared by Andrew Jewell.

sustainability. Section C looks at revenues and suggests ways to mobilize more revenues—particularly nonhydrocarbon revenues. Section D examines expenditures and recommends policies for cutting spending while limiting the risks to economic growth and social stability. Section E concludes.

B. Recent Fiscal Trends

5. In the decade leading up to the global financial crisis, Algeria recorded consecutive fiscal surpluses and accumulated large fiscal savings. From 1998 to 2008, primary surpluses averaged 7.7 percent of GDP. During this period, rapidly rising oil prices led to booming hydrocarbon exports, which in turn generated a surge in hydrocarbon revenues. Part of this hydrocarbon windfall was used to pay down external debt, which fell from over 60 percent of GDP to less than 5 percent.² Another part was saved in the *Fonds de Régulation des Recettes* (FRR), Algeria's oil savings fund. By the time the crisis struck, Algeria's public finances were in a healthy state, with the FRR having grown to nearly 40 percent of GDP. But the budget's overwhelming dependence on hydrocarbons represented a clear vulnerability.

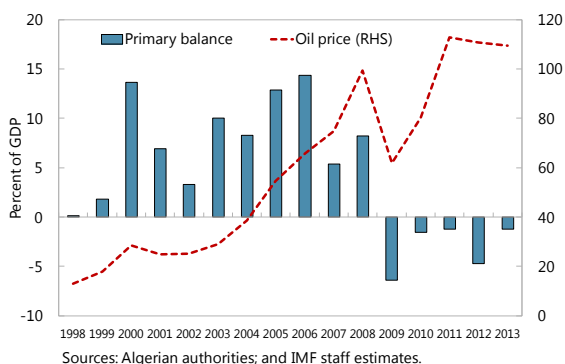
6. Since the crisis, Algeria has recorded fiscal deficits for five straight years, while savings accumulated in the FRR have begun to decline. When the crisis hit in 2008, oil prices declined sharply, negatively affecting hydrocarbon exports and thus hydrocarbon revenues. In subsequent years, oil prices rebounded, surpassing pre-crisis levels, yet fiscal deficits continued. This outcome can be explained by two factors. First, spending surged and was maintained at relatively high levels in an effort to maintain social stability. Second, the rebound in oil prices was offset by declining hydrocarbon export volumes—the result of slumping hydrocarbon production and rapidly increasing domestic hydrocarbon consumption. As a share of GDP, fiscal savings accumulated in the FRR peaked at 43.3 percent in 2009, but have since been on a declining trend. In absolute terms, fiscal savings declined in 2013 for the first time since the FRR was established; a further decline is anticipated in 2014.

7. Another sign of increasing vulnerability can be found in the evolution of Algeria's fiscal breakeven oil price. The fiscal breakeven oil price is the theoretical price of oil that would yield a balanced budget in a given year. Since 2003, the breakeven oil price has increased from \$20/barrel to as high as \$125/barrel in 2012, and it is projected to reach nearly \$136/barrel in 2014—one of the highest breakeven oil prices in the region among oil exporters. This underscores the vulnerability of fiscal policy to a fall in oil prices. Looking ahead, under baseline assumptions, the breakeven oil price is projected to remain above the WEO oil price (derived from oil futures contracts), implying that Algeria will continue to record fiscal deficits unless oil prices (or export volumes) are higher than currently forecast, or unless Algeria undertakes more ambitious fiscal consolidation than currently assumed.

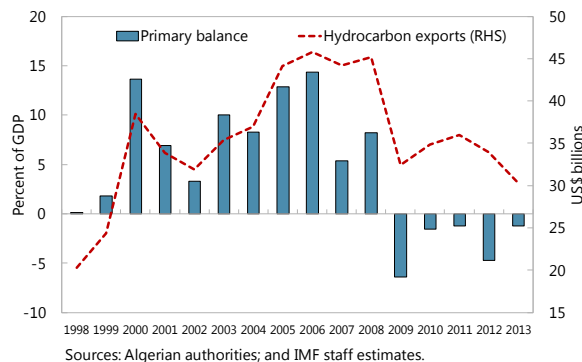
² Algeria repaid the last of its debt to the IMF in 2005 and prepaid its outstanding balance to the Paris Club in 2006.

Figure 1. Algeria: Fiscal Indicators

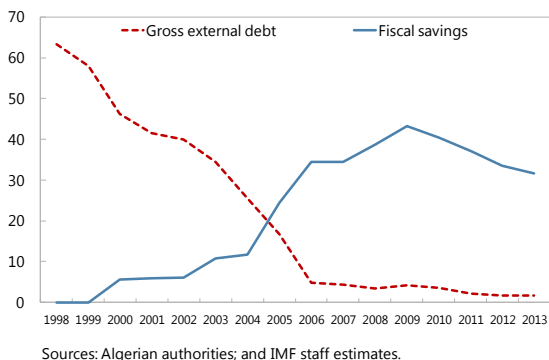
Primary Fiscal Balance and Oil Prices



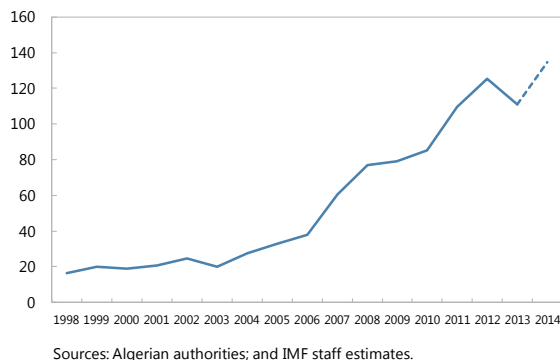
Primary Fiscal Balance and Hydrocarbon Exports



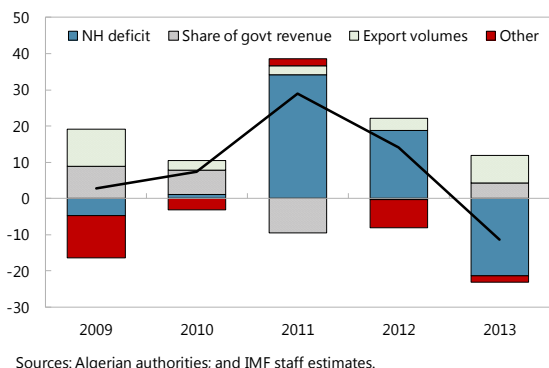
Fiscal Savings and Gross External Debt
(Percent of GDP)



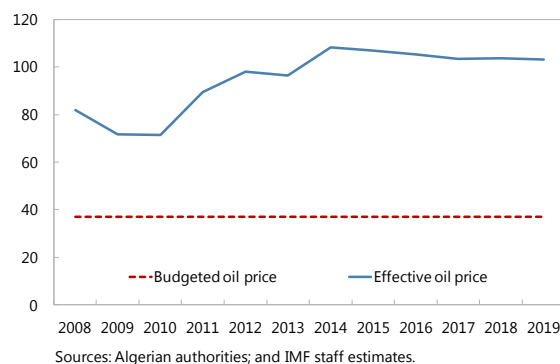
Fiscal Breakeven Oil Price
(US\$ per barrel)



Change in Fiscal Breakeven Price
(Contribution in percent)



Budgeted vs. Effective Oil Price
(US\$ per barrel)



8. Fiscal policy is currently on an unsustainable path. Although the nonhydrocarbon primary deficit, as a share of nonhydrocarbon GDP, is projected to decline over the medium term, the magnitude of this decline is not sufficient to maintain real wealth per capita in the long run.³ Put differently, under current economic policies and trends, Algeria will deplete its financial savings in the long term, leaving future generations worse off. To achieve sustainability, fiscal policy must take into account the relatively short time horizon for hydrocarbon resources. Algeria's crude oil reserves are expected to be depleted in 20 years, and its gas reserves in 55 years.⁴ By comparison, the average resource horizon for crude oil and gas among Middle East countries is 78 years and over 100 years, respectively. Fiscal sustainability implies targeting a nonhydrocarbon fiscal balance that can be maintained even after hydrocarbon revenues run out.

9. The size of the fiscal adjustment necessary to ensure fiscal sustainability can be estimated using different approaches.

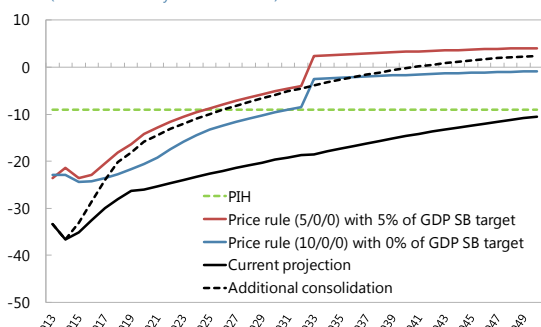
- A starting point for long-term sustainability analysis is the permanent income hypothesis (PIH). Under the PIH, fiscal sustainability is ensured when a country maintains a constant non-resource primary deficit equal to the implicit return on the present value of future natural resource revenue plus accumulated net financial savings. When applied to Algeria, the PIH rule suggests that a nonhydrocarbon primary deficit equal to 9 percent of nonhydrocarbon GDP on a permanent basis would ensure long-term sustainability and an adequate increase in savings for future generations. However, the implied fiscal adjustment under this approach—i.e., immediately shrinking the nonhydrocarbon primary deficit from 37 percent on nonhydrocarbon GDP to 9 percent—would be difficult to implement.
- An alternative approach to achieving sustainability, but with a slower accumulation of savings for the future, is to follow a fiscal rule that combines an oil price formula for smoothing revenue volatility with a “structural” primary balance target.⁵ Such a fiscal rule should be established in an organic budget law, together with an explanation of how the rule is to be enforced. As discussed in IMF (2014a) and Tapsoba (2014), a backward-looking oil price formula, combined with a floor on the structural primary balance and a cap on drawings from the FRR, would ensure long-term sustainability while allowing for a more gradual fiscal adjustment. The implied consolidation is nevertheless significant and will require efforts to both increase revenues and contain expenditures.

³ The nonhydrocarbon primary deficit is defined as the primary deficit excluding hydrocarbon revenues, which are largely beyond the control of the government since they depend on the price of oil.

⁴ Source: BP Statistical Review of World Energy June 2013.

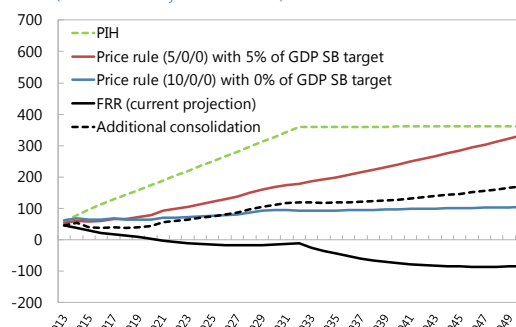
⁵ A structural primary balance is defined as the primary balance excluding the cyclical component of hydrocarbon revenues.

Nonhydrocarbon Primary Balance
(Percent of nonhydrocarbon GDP)



Source: Algerian authorities; and IMF staff estimates.

Cumulative Financial Savings
(Percent of nonhydrocarbon GDP)

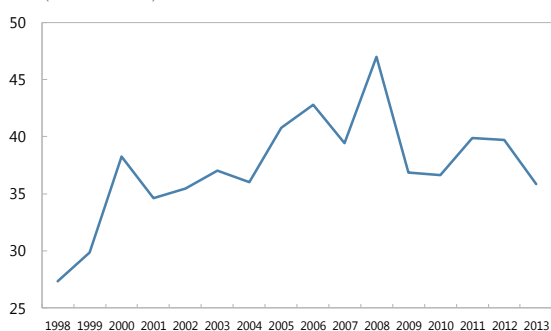


Sources: Algerian authorities; and IMF staff estimates.

C. Mobilizing More Revenues

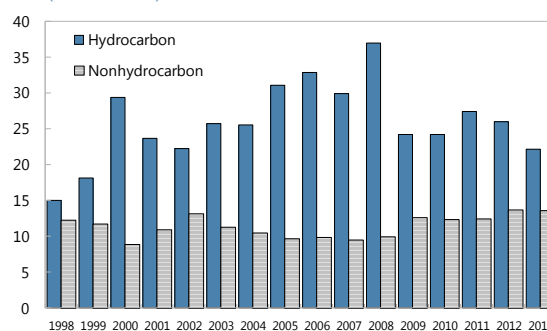
10. Revenues increased significantly prior to the crisis, but have since been on a downward trend, as declining hydrocarbon revenues have more than offset an increase in nonhydrocarbon revenues. Total revenues as a percent of GDP nearly doubled in the decade leading up to the crisis, rising from 27 percent in 1998 to 47 percent in 2008. Since the crisis, however, revenues have fallen to 36 percent. Hydrocarbon revenues, which account for the bulk of all revenues, have declined since the crisis as a result of the contraction in hydrocarbon exports. Nonhydrocarbon revenues, on the other hand, have increased somewhat, owing to an increase in tax revenues, which account for the vast majority of all nonhydrocarbon revenues. Among these tax revenues, the share of taxes on income and profits has increased over the last decade while the share of taxes on goods and services has declined. This shift toward taxes on income and profits is linked to wage increases and progressive income tax rates. Given the relatively short time horizon for hydrocarbon resources, and in order to reduce the exposure of revenues to swings in oil prices, Algeria must find ways to mobilize more nonhydrocarbon revenues.

Revenues
(Percent of GDP)



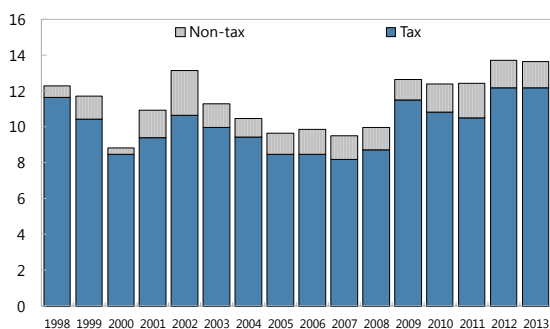
Sources: Algerian authorities; and IMF staff estimates.

Revenues
(Percent of GDP)



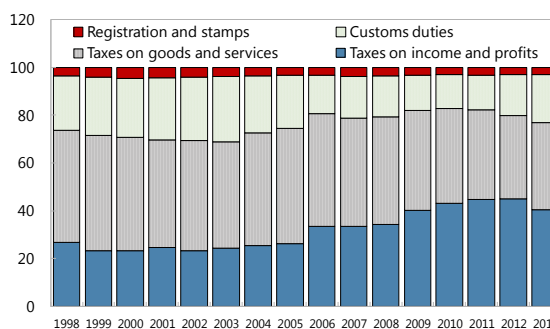
Sources: Algerian authorities; and IMF staff estimates.

Nonhydrocarbon Revenues
(Percent of GDP)



Sources: Algerian authorities; and IMF staff estimates.

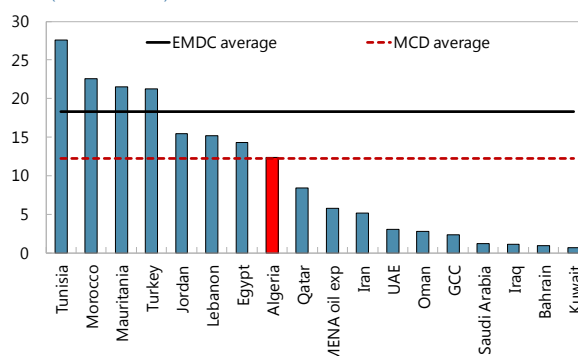
Composition of Nonhydrocarbon Tax Revenues
(Percent)



Sources: Algerian authorities; and IMF staff estimates.

11. A comparison of Algeria with other countries suggests that there is scope for additional nonhydrocarbon revenue collection. Although Algeria’s nonhydrocarbon tax revenue intake—at 12.4 percent of GDP in 2013—is on par with the average in MCD countries, it is below the average in emerging and developing countries and well below the ratios in Morocco and Tunisia. Moreover, revenue gap analysis suggests that Algeria has not reached its revenue potential. According to this analysis (Box 1), which considers revenue levels in 141 countries worldwide while controlling for per capita income and the current business cycle position, Algeria has the potential to collect additional revenues equal to 2.3 percent of GDP. Yet even reaching its revenue potential would still leave Algeria below the average level of revenue collection in emerging and developing countries. Thus, Algeria’s challenge is twofold: meeting its revenue potential and increasing the potential itself.

Tax Revenue, 2013
(Percent of GDP)



Sources: National authorities; and IMF staff estimates.

Box 1. Tax Potential and Revenue Gaps

Revenue gap analysis is used to estimate the difference between a country's actual revenues and its potential revenues. A common way of assessing potential revenues is to model, across a sample of countries, the relationship between revenues and certain economic characteristics that are likely to affect a country's revenue-raising ability. Revenue potential can then be estimated by comparing a country's actual revenues with the sample average, controlling for these economic characteristics. By construction, some countries will have revenues above this average, and others will have revenues below.

Torres (2013) extends this methodology by applying it to a subset of revenues that excludes taxes on international trade, grants, and non-tax revenues, all of which are somewhat less under the government's direct control. The remaining subset of revenues is used to derive a country's tax potential. The table below shows the relationship between this subset of revenues and two key country characteristics: per capita income and the current business cycle position (proxied by the gap between the current GDP growth rate and its potential). The data come from a cross-section of 141 non-oil exporting countries and therefore do not contain hydrocarbon revenues. Algeria is treated as a non-oil exporting country by excluding all hydrocarbon revenues and by considering only nonhydrocarbon GDP.

Determinants of Tax Revenues

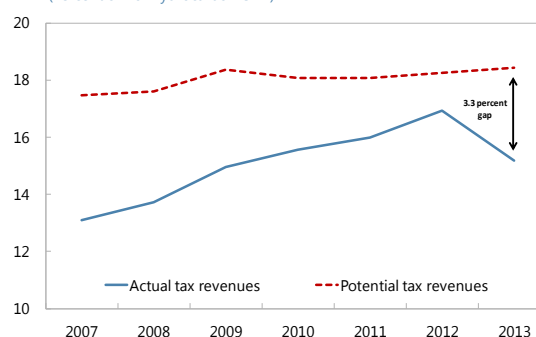
(Percent of GDP)

	Tax revenue
Per capita GNI	1.40***
Growth gap	0.08***
Constant	9.31***
Number of countries	141.0
R-squared	
Within	0.053
Between	0.528
Overall	0.510
Number of observations	987

¹ Excludes taxes on international trade

Potential Tax Revenue Gains

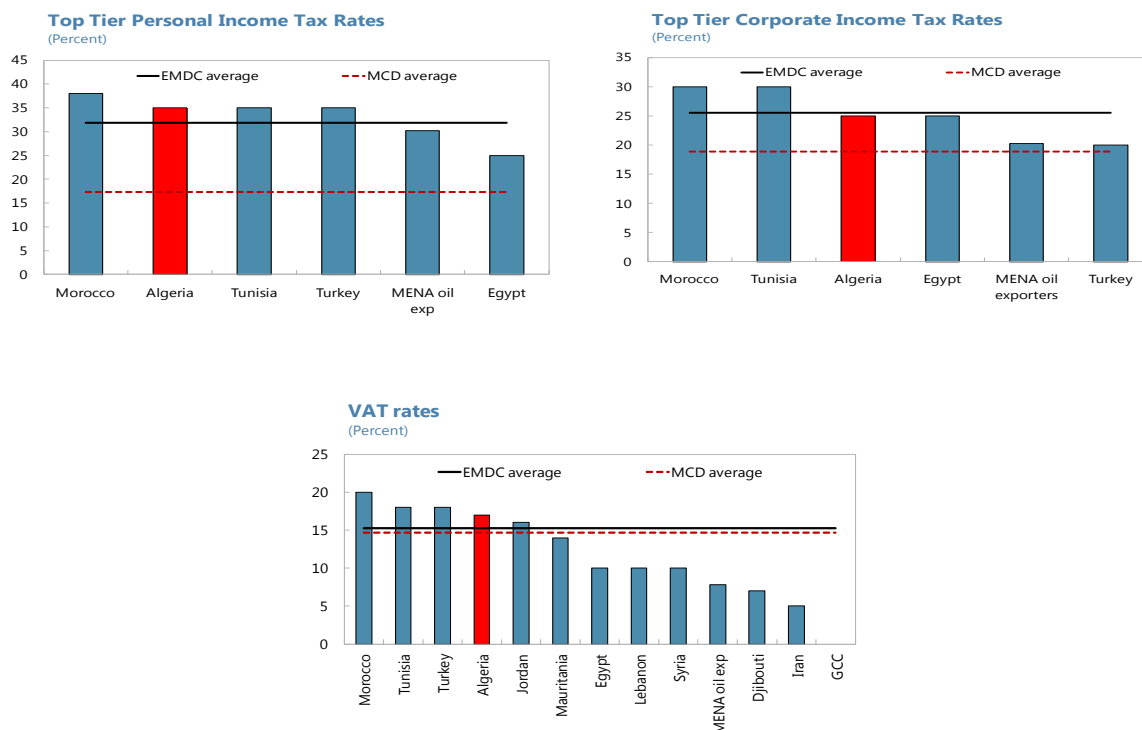
(Percent of nonhydrocarbon GDP)



Sources: National authorities; and IMF staff estimates.

The model suggests that, over the last seven years, Algeria has not reached its tax potential. In 2013, Algeria's tax potential was equal to 18.4 percent of nonhydrocarbon GDP. By comparison, actual tax receipts (excluding taxes on international trade) amounted to 15.2 percent of nonhydrocarbon GDP. Thus, there was a revenue gap of 3.3 percent of nonhydrocarbon GDP, equivalent to about 380 billion dinars, or 2.3 percent of overall GDP.

12. Statutory tax rates in Algeria are not unduly low. Revenues in most MCD economies are lower than in other emerging and developing countries, partly reflecting low personal income tax and corporate income tax rates. This is not the case in Algeria, however, where the top tier personal and corporate income tax rates exceed by a large margin the respective MCD averages and are near or above averages in emerging and developing countries. Similarly, the standard value-added tax (VAT) rate, at 17 percent, is among the highest in the region and is above the average in emerging and developing countries.

Box 2. Tax Rates, 2013¹

Sources: National authorities; KPMG, Deloitte; and IMF staff estimates.

¹Or latest data available.

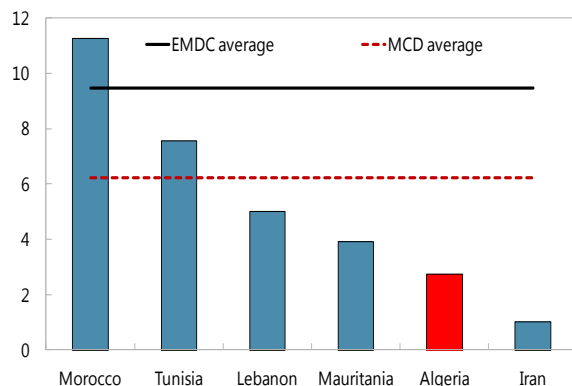
13. Effective tax rates, however, are considerably lower than the statutory rates, owing to a proliferation of exemptions. Algeria's effective VAT rate, defined as VAT revenue as a share of consumption, is just 2.7 percent; this yields a VAT collection efficiency (equal to VAT revenue divided by the product of the VAT rate and consumption) of 16.0 percent.⁶ Both numbers are well below the averages in MCD countries and in emerging and developing countries. By contrast, Algeria's effective personal income tax rate (equal to personal income tax revenues as a share of wages), at 13.0 percent, appears to be reasonably high: in a sample of 49 countries for which data is available, the average effective personal income tax rate was 11.4 percent.⁷ This may be due to high government salaries, which push government employees into high tax brackets relative to other countries.

⁶ Consumption taxation in Algeria is not limited to the VAT. A number of earmarked taxes, including the *taxe sur l'activité professionnelle*, are sales taxes. VAT reform cannot be contemplated without considering the entire system of consumption (or sales) taxes.

⁷ Lack of data on corporate income precludes an evaluation of the effective corporate income tax rate.

Effective VAT rates¹

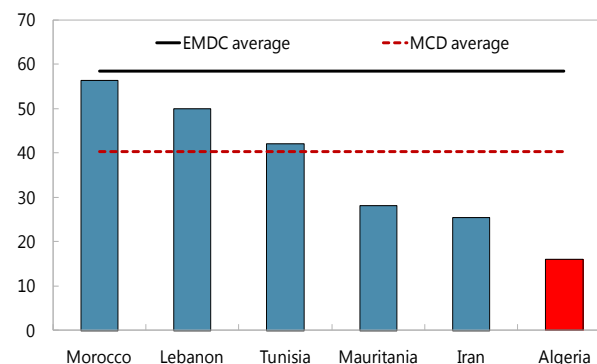
(Percent)

¹VAT revenues as a share of consumption.

Sources: National authorities; and IMF staff estimates.

VAT efficiency¹

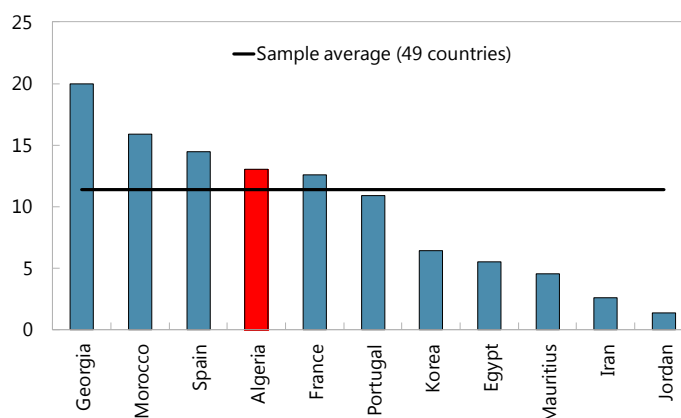
(Percent)

¹VAT revenues divided by the product of the VAT rate and consumption.

Sources: National authorities; and IMF staff estimates.

Effective Personal Income Tax Rate

(Percent)



Sources: National authorities, ILO, and IMF staff estimates.

14. Rationalizing tax exemptions is critical for broadening the tax base and unlocking more nonhydrocarbon revenues. Base broadening measures are generally preferable to across-the-board rate increases because the latter can be regressive, particularly for income and consumption taxes. Moreover, there is evidence that base broadening is better for economic growth and for improving the business environment.⁸ One way to broaden the tax base in Algeria is to eliminate or reduce costly tax exemptions—particularly VAT exemptions. If Algeria managed to bring its effective VAT rate to the average effective rate in emerging markets and developing countries (9.5 percent), it would stand to generate about 600 billion dinars in additional VAT revenues. Although Algeria's effective personal income tax rate does not appear to be particularly

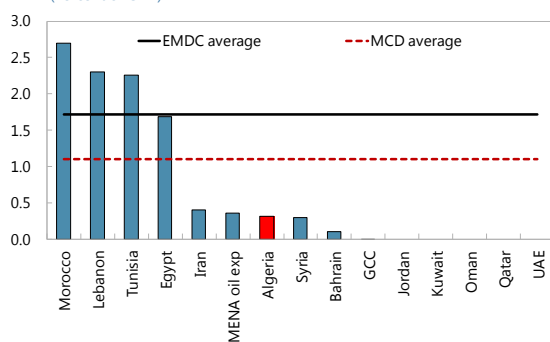
⁸ See Acosta-Ormachea, Keen, and Yoo (2013).

low, government programs that are exempted from income taxes or benefit from reduced rates, such as the agency for investment development (*Agence nationale pour le développement de l'investissement*, ANDI) and the youth employment supporting agency (*Agence nationale pour le soutien à l'emploi*, ANDI), should be evaluated to see if the benefits of the programs outweigh the fiscal costs.

15. Another way to broaden the tax base is to induce more firms and workers to leave the informal sector and become part of the formal sector. According to the 2011 employment survey conducted by the Algerian statistics office, 46 percent of wage earners were not registered—a number that has grown over the years. Policy options for reducing the size of the informal sector include removing barriers to entry for firms, creating incentives for small businesses to formalize, and improving labor regulations.⁹

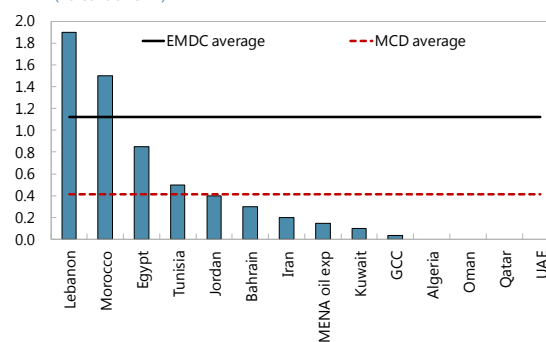
16. The business turnover tax should be replaced with excise and property taxes. The *taxe sur l'activité professionnelle* (TAP), a tax on business turnover and the primary source of revenues for local governments, is distortive and should be eliminated. To offset the revenue loss, the TAP should be replaced by excise and property taxes. Excise taxes in Algeria are very low by international standards, while property taxes are almost non-existent. Increasing excise taxes and property taxes (especially on high-value properties) would achieve gains in revenues, efficiency, and fairness. Moreover, the effects on growth may not be strong, given that excise taxes are levied mostly on low price elasticity products, and property tax are more likely to affect the wealthy. Putting in place property taxes, however, would require substantial upfront investment in administrative infrastructure, including establishing a comprehensive cadastre and valuation mechanism.

Excise Tax Revenue
(Percent of GDP)



Sources: National authorities; and IMF staff estimates.

Property Tax Revenue
(Percent of GDP)



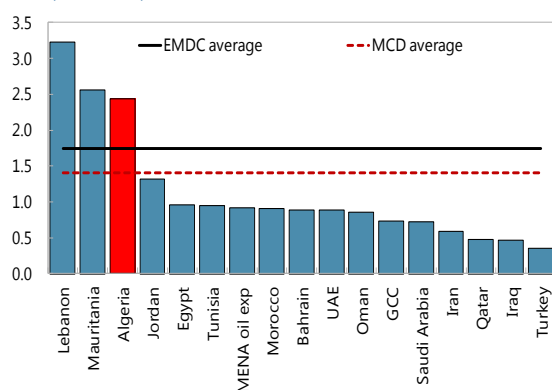
Sources: National authorities; and IMF staff estimates.

⁹ See Gatti, Angel-Urdinola, Silva, and Bodor (2014).

17. The policies described above should be complemented by reforms to tax and customs administration. Over the past decade, the Algerian authorities have made good progress in improving tax administration. Current efforts are focused on enhancing IT systems, and this reform should remain a priority. In addition, the restructuring of tax control and collection offices into a smaller number of tax centers (*centres des impôts*, CDI) and local tax offices (*centres de proximité des impôts*, CPI) is moving forward, but should be accompanied by a strengthening of tax inspection capacities, particularly with respect to large firms. Efforts should be made to improve customs administration to raise yields on import VAT, excise, and international taxes. Measures should include better information sharing between the tax and customs administration, replacing cumbersome customs codes with a simplified code, and reducing large physical examination requirements and lengthy clearance periods. Although customs revenues in Algeria are high by international standards, this is in large part due to high tariffs. If Algeria is to achieve its objective of joining the World Trade Organization, it will need to reduce these tariffs, making reforms to customs administration all the more important.

Customs Revenues

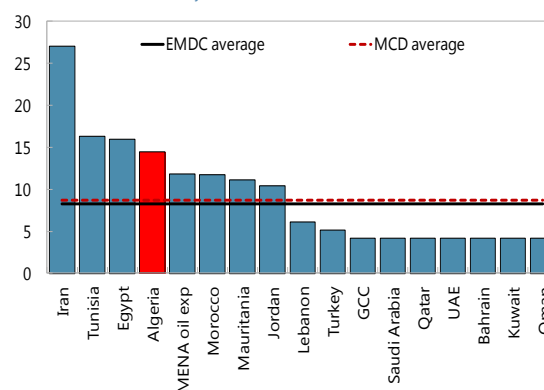
(Percent GDP)



Sources: National authorities; and IMF staff estimates.

Trade-weighted Average Tariff Rate

(2012 or most recent year available)



Source: World Economic Forum Global Competitiveness Report 2014-2015

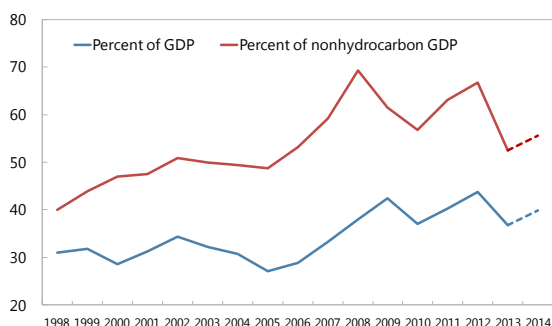
18. Reforms to diversify the economy will be critically important to raise revenues. Wide-ranging structural reforms are needed to unleash the private sector and create an enabling environment for nonhydrocarbon production—and exports—to flourish. A more dynamic nonhydrocarbon sector and a more diversified export base would yield more revenues and reduce the vulnerability of the budget to fluctuations in oil prices.

19. Finally, investments to support growth in the hydrocarbon sector would also contribute to revenue mobilization. Output of the hydrocarbon sector has contracted for eight consecutive years, contributing to the decline in hydrocarbon revenues. While it is true that fiscal sustainability depends critically on increasing *nonhydrocarbon* revenues, Algeria should also seek to prevent further declines in hydrocarbon revenues. This will require investments to enhance production capacity of existing fields and expand oil and gas reserves through exploration.

D. Reorienting Spending

20. Spending has been on an upward trend since before the crisis, notwithstanding some consolidation in 2013. Spending peaked at 44.6 percent of GDP in 2012, up from 27.1 percent in 2005. Despite some consolidation in 2013, the level of spending in Algeria (as a share of GDP) stood as one of the highest in the region, well above the average in other MENA oil exporters. As spending has increased over the years, the composition of spending has changed. Prior to the crisis, the share of capital spending grew steadily. Since the crisis, capital spending has increasingly given way to current spending. Since 2009, capital spending has contracted nearly 8 percent while spending on wages, salaries, subsidies, and transfers has increased, reflecting government efforts to counter the effects of the crisis and maintain social stability amid popular uprisings in the region. Nevertheless, despite the increasing weight of current spending, the level of capital spending in 2013 remained high by regional and international standards.

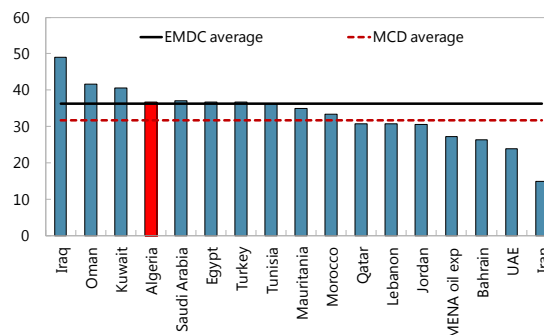
Total Expenditures



Sources: Algerian authorities; and IMF staff estimates.

Total Expenditures, 2013

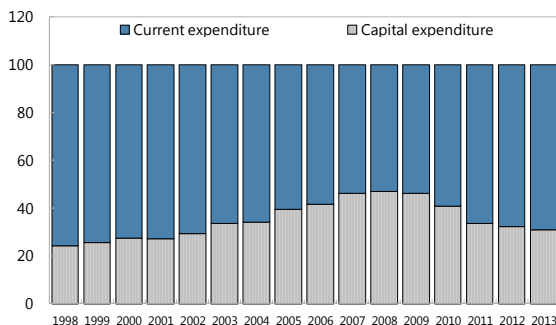
(Percent of GDP)



Sources: National authorities; and IMF staff estimates.

Composition of Expenditures

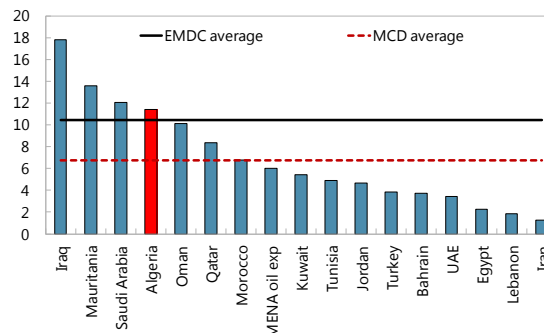
(Percent)



Sources: Algerian authorities; and IMF staff estimates.

Capital Expenditures, 2013

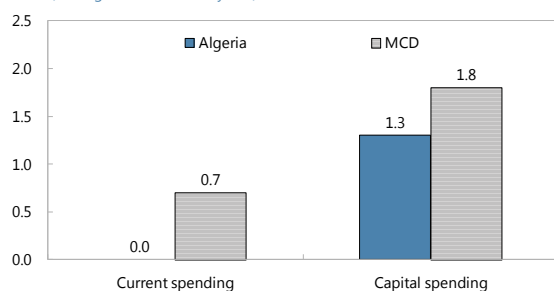
(Percent of GDP)



Sources: National authorities; and IMF staff estimates.

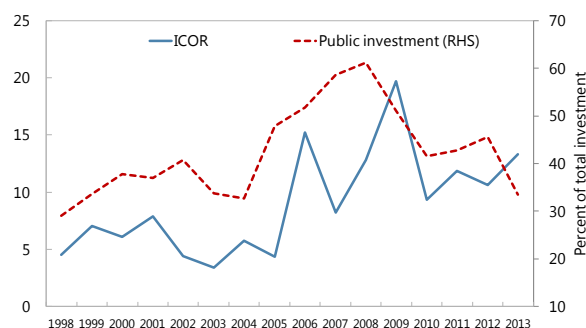
21. To cushion the impact on economic growth, fiscal consolidation should entail cuts to current spending while preserving capital spending. IMF staff estimates that Algeria’s current spending multiplier is significantly smaller than its capital spending multiplier, which is estimated to be 1.3. This is consistent with multiplier estimates in MENA countries.¹⁰ The impact of fiscal consolidation on growth can therefore be mitigated by cutting current spending and channeling the savings into growth-enhancing capital spending. However, the fact that Algeria’s capital spending multiplier is lower than the regional average underscores the relative inefficiency of its capital spending. Another indication of the inefficiency of capital spending is the relationship between Algeria’s incremental capital-output ratio (ICOR) and public investment. As public investment has increased (as a percent of total investment), so has the ICOR, indicating diminishing returns, in terms of output, to increases in public investment. Hence, policies to reduce current spending and preserve capital spending should be coupled with efforts to improve the efficiency of capital spending. This will require consistent implementation of competitive practices in public procurement as well as measures to strengthen the planning, implementation, monitoring, and maintenance of public investment projects.

Fiscal Multipliers¹
(Average over first three years)



¹Defined as the ratio of a change in output to an exogenous change in government spending.
Source: IMF staff estimates.

ICOR vs. Public Investment

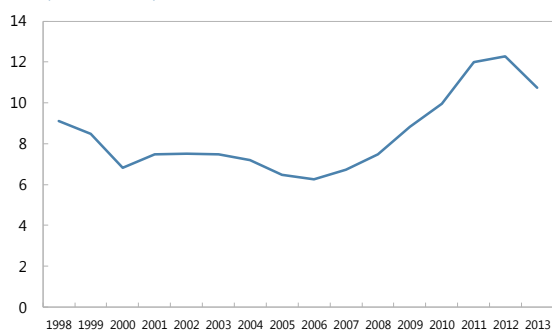


Sources: Algerian authorities; and IMF staff estimates.

22. The public wage bill expanded rapidly following the crisis, complicating the task of fiscal consolidation. Spending on wages and salaries doubled between 2007 and 2012 (as a percent of GDP) as the government hired more workers, increased salaries, and granted back payments. Such spending helped to maintain social stability, but also fueled inflation and introduced expenditure rigidities. Despite some contraction in 2013, the wage bill in Algeria remains among the highest in the region and well above the average in emerging and developing countries. It is also relatively high when taking into account per capita GDP. In addition to crowding out growth-enhancing capital expenditures, wage bill increases tend to exacerbate inequality, reflecting government employees’ above-average position in the income distribution. Higher public sector salaries also reduce the appeal of private sector jobs for the best workers, stifling development of the private sector.

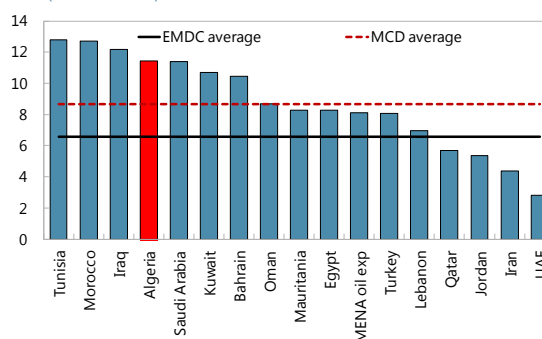
¹⁰ See Abdallah, Cerisola, Davies, and Fischer (forthcoming).

Spending on Wages and Salaries
(Percent of GDP)



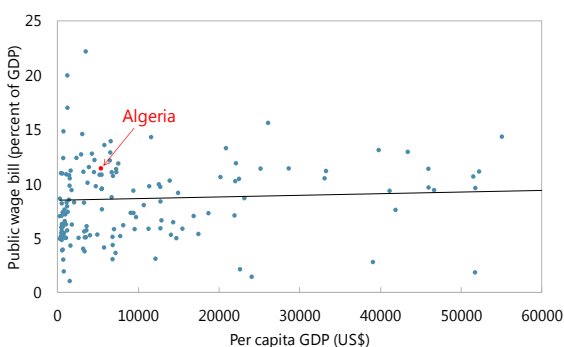
Sources: Algerian authorities; and IMF staff estimates.

Wage Bill, 2013
(Percent of GDP)



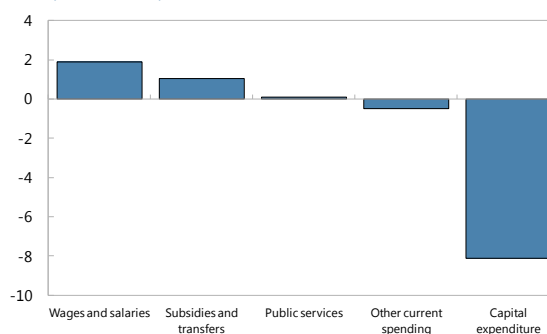
Sources: National authorities; and IMF staff estimates.

Wage Bill vs. Per Capita GDP, 2012



Sources: WEO; and World Development Indicators.

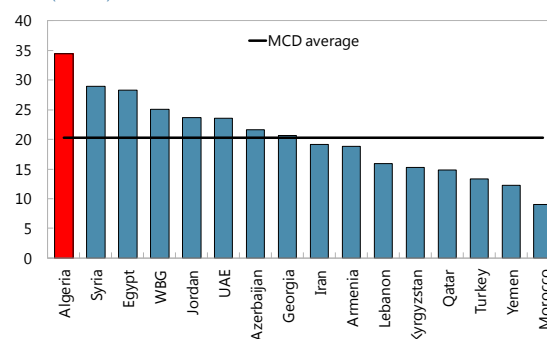
Changes in Expenditure, 2009-2013
(Percent of GDP)



Sources: Algerian authorities; and IMF staff estimates.

23. The government should contain the wage bill by stabilizing the size of the civil service and anchoring wage growth to productivity improvements. Algeria has the highest ratio of employees working in the public sector of any MCD country for which data is available.¹¹ Decomposing the wage bill into its two components—wages and number of public sector employees—reveals that the size of the public sector is particularly large. There are 113 public sector employees in Algeria for every thousand people, compared to an average of 70 per thousand in other countries for which data is available. If the size of Algeria’s public sector were in line with the international average, the wage bill would amount to 7.1 percent of GDP instead of 11.5 percent. Thus, fiscal consolidation efforts should

Proportion of Public Employment, Latest Year
(Percent)

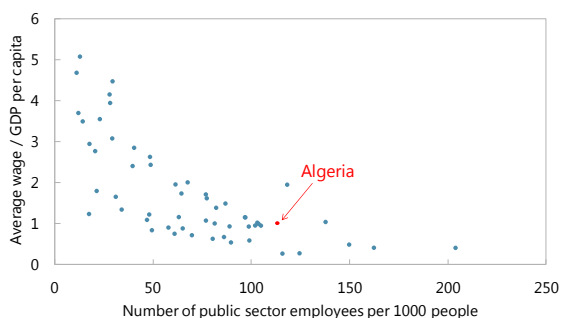


Source: Behar and Mok (2013).

¹¹ Public sector here is defined to include not only governmental agencies but also state-owned enterprises. See Behar and Mok (2013).

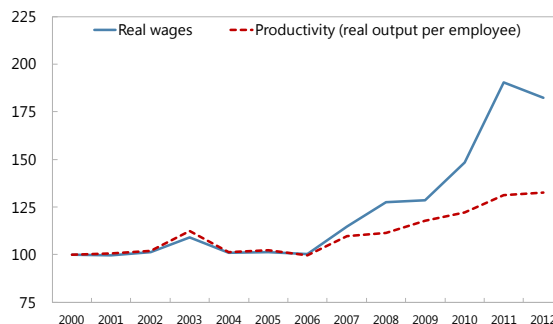
include reforms that review the size and structure of the public sector, with the goal of creating a smaller, more efficient workforce. With respect to wages, the average public sector wage in Algeria is below the international average, controlling for per capita income. Nevertheless, further wage increases should be strictly tied to gains in productivity—contrary to what has occurred in recent years. Indeed, since 2006, growth in real wages (public and private sector combined) has outpaced productivity gains, hurting Algeria’s competitiveness.

Wage Bill: Wages vs. Number of Employees



Sources: National authorities; ILO; WEO; World Development Indicators; and IMF staff estimates.

Wages (Public and Private) vs. Productivity
(Index, 2000=100)

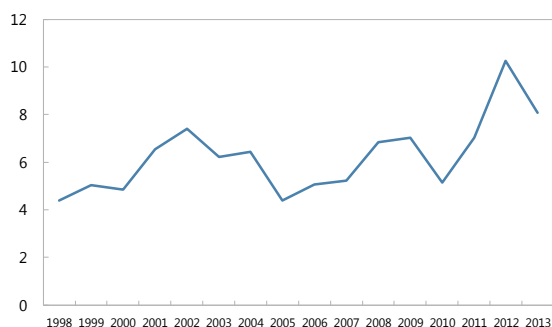


Sources: Algerian authorities; and IMF staff estimates.

24. Spending on subsidies and transfers also surged following the crisis. In the years 2011 and 2012, spending on subsidies and transfers doubled as a percent of GDP, growing to more than a third of current expenditures. Explicit subsidies for food, water, electricity, natural gas, housing, education, and interest rates amounted to 4.8 percent of GDP in 2012. When implicit subsidies are taken into account (including for petroleum products), the total cost of these subsidies increases to 18.3 percent of GDP. Implicit subsidies arise from the fact that prices for subsidized food, water, electricity, natural gas, and public housing are well below costs and have been frozen for 9–18 years.¹² Although implicit subsidies do not have a direct impact on the budget, they represent a major source of foregone revenues and give rise to episodic and costly bailouts of public companies that supply services at below-market prices. With respect to transfers, approximately half consist of allocations to local governments, pension-related spending, and labor market programs. The surge in transfers in 2011 and 2012 was partly linked to wage increases, confirming the impact of wage increases on other categories of current spending.

¹² The price of bread has not changed since 1996. Prices for water, natural gas, and electricity have been frozen since 2005.

Subsidies and Transfers
(Percent of GDP)



Sources: Algerian authorities; and IMF staff estimates.

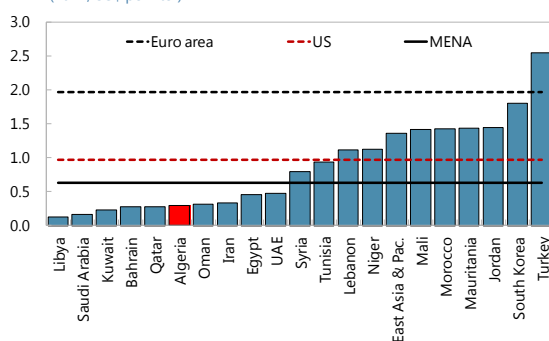
Subsidies, 2012
(Percent of GDP)

	Explicit	Implicit	Total
Non-oil	4.8	8.8	13.6
Food (milk, cereal, oil, and sugar)	1.1	-	1.1
Water, natural gas, and electricity	0.5	7.9	8.4
Water	-	1.0	1.0
Natural gas	-	3.4	3.4
Electricity	-	4.0	4.0
Housing	2.2	0.9	3.1
Education	0.7	-	0.7
Interest rates (2013)	0.3	-	0.3
Petroleum products (diesel, gasoline, and LPG)	-	4.7	4.7
Total	4.8	13.5	18.3

Sources: Algerian authorities; and IMF staff estimates.

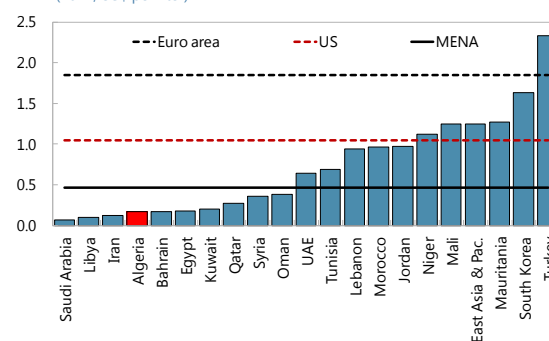
25. Besides carrying a large fiscal cost, subsidies are inequitable and inefficient. The government views subsidies as integral to its social policy, but they benefit the rich more than the poor. This is particularly the case for fuel, water, electricity, and natural gas, which are consumed more by the well off. Gasoline and diesel fuel prices are among the lowest in the world and well below the average in the region. Low prices have led to rapid growth in domestic consumption, cutting into hydrocarbon exports, and have encouraged large scale smuggling to neighboring countries, where these fuels are three to five times more expensive.¹³ Overconsumption and distortions are prevalent in other subsidized sectors as well. For example, imports of powdered milk per capita are several times the levels in neighboring countries, even though domestic production of milk per capita is comparable. This suggests that domestic consumption is unusually high in Algeria—or that unrecorded re-exports of milk are large.

Gasoline Prices
(2012, US\$ per liter)



Source: World Development Indicators

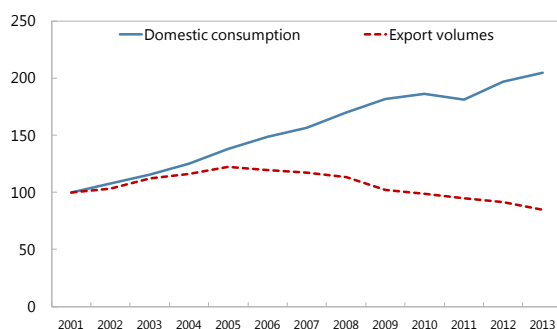
Diesel Fuel Prices
(2012, US\$ per liter)



Source: World Development Indicators

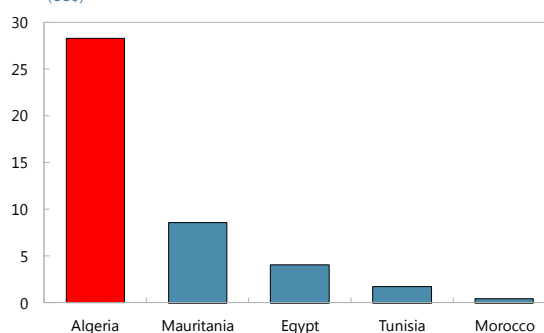
¹³ The authorities estimate that 1.5 billion liters of gasoline and diesel fuel—equal to a quarter of domestic production—were smuggled across the border in 2012.

Hydrocarbon consumption vs. export volumes
(Index, 2001=100)



Sources: Algerian authorities; and IMF staff estimates.

Imports of Powdered Milk Per Capita
(US\$)

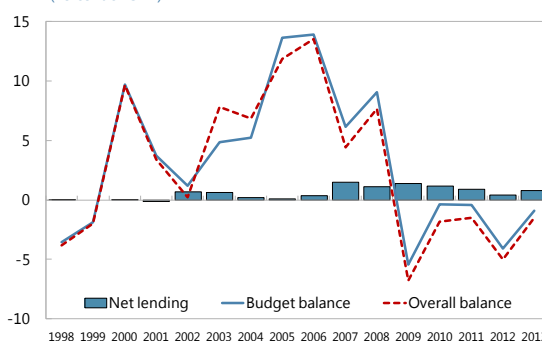


Sources: Comtrade; World Development Indicators; and IMF staff estimates.

26. Implicit and explicit subsidies should be gradually phased out and replaced by a well-targeted cash transfer system. Eliminating subsidies will be challenging and should be tackled in a way that mitigates the social impact. Improving transparency is an important first step; in this regard, the authorities' decision to publish the cost of implicit subsidies in an appendix to the 2014 budget law was a welcome development. A broad communications campaign should be mounted to educate the public about the cost and shortcomings of subsidies. Subsidy reform should also be gradual: the timing of price increases can be spread over a number of years and can vary by product. Universal subsidies on goods and services should ultimately be replaced by a well-targeted cash transfer program. The cost savings could take years to materialize, but a cash transfer program would be more efficient, more equitable, and less distortionary. Such a program could be built on existing infrastructure, with appropriate technical assistance, and achieve redistributive objectives at a lower fiscal cost.

27. Net lending, once negligible, has become more significant in recent years. Net lending is recorded by the authorities as a financing item in the fiscal accounts, alongside another financing item (special accounts balances). Together, these two items explain the difference between the "budget balance" and the "overall balance" in the authorities' accounting presentation. Since 2007, net lending has averaged 1.0 percent of GDP compared to 0.2 percent during the previous decade, and has accounted for most of the divergence between the budget balance and the overall balance. The increase in net lending reflects government purchases of debt owed by state-owned enterprises (SOEs), direct lending to SOEs, and off-budget investment spending. That net lending is recorded in the fiscal accounts is welcome; however, a more transparent presentation would be preferable, particularly if net lending continues to grow in importance.

Net Lending
(Percent of GDP)



Sources: Algerian authorities; and IMF staff estimates.

28. Broad public financial management reforms would support fiscal consolidation efforts and demonstrate Algeria's commitment to good governance. The government launched a comprehensive plan for the modernization of its budget systems in 2001, but implementation has been slow. PFM reforms in the following areas would complement fiscal consolidation efforts:

- The budget should be formulated with a medium-term perspective and according to performance-based objectives.¹⁴
- A more modern accounting system would help improve costing and controls over spending commitments (particularly on investment) and ensure that spending is made according to prescribed purposes.
- Improved public finance statistics would help the authorities better prepare the budget on the basis of reliable information.
- An integrated information management system would provide timely and reliable data and increase synergies between various departments.
- The efficiency of public investment could be increased by improving project selection, implementation, and monitoring.
- Ex-post evaluations of government programs (e.g., labor market programs) are needed to identify those that are ineffective and should be modified or eliminated.

E. Conclusions

29. Algeria will need to undertake significant and consistent fiscal consolidation to restore fiscal sustainability. In the wake of the crisis, Algeria expanded wages, subsidies, and transfers in an effort to address social demands. At the same time, revenues declined as a result of slumping hydrocarbon exports. Five consecutive years of fiscal deficits, combined with declining hydrocarbon exports and a relatively short time horizon for hydrocarbon resources, have placed fiscal policy on an unsustainable trajectory that threatens to leave future generations less well off. Fiscal consolidation initiated in 2013 was welcome but limited in scope. Future consolidation must be more ambitious and sustained over many years to restore sustainability.

30. Successful fiscal consolidation depends on both mobilizing more revenues and rationalizing expenditures. On the revenue side, Algeria must find ways to increase nonhydrocarbon revenues, given finite hydrocarbon resources and the volatile nature of oil prices. Although statutory tax rates are not especially low, the tax base is small, implicit subsidies are costly in terms of foregone revenues, and more can be done to strengthen tax administration. On the expenditure side, Algeria must contain current spending while preserving growth-enhancing capital

¹⁴ The authorities intend to have a medium-term budget framework and performance-based budgeting in place by 2016, with a transition period beginning in 2015.

spending. In particular, the wage bill must be contained and subsidies rolled back. The policy of maintaining social order through government largesse, while arguably successful to date, cannot be sustained.

31. If done right, fiscal consolidation can restore sustainability while minimizing the impact on economic growth and enhancing equity. To meet this challenge, staff recommends the following reforms:

- The most costly tax exemptions should be eliminated—particularly VAT exemptions.
- Steps should be taken to bring more workers into the formal sector, including removing barriers to entry for firms, reforming the civil service, and improving labor market regulations.
- The TAP should be replaced with excise taxes (especially on luxury goods) and property taxes (especially on high-value properties).
- Tax administration reforms should continue, and customs administration reforms pursued.
- More investment in the hydrocarbon sector is required to reverse the decline in hydrocarbon production and expand exploration.
- Wide-ranging structural reforms are needed to diversify the economy, promote private sector development, and generate more nonhydrocarbon revenues.
- The size of the civil service should be reduced, and further wage increases tied to increases in productivity.
- Subsidies (both implicit and explicit) should be gradually phased out and replaced by a well-targeted cash transfer system.
- Public financial management reforms should be accelerated.

32. The reforms outlined above would be supported by the adoption of a fiscal rule. Staff recommends that Algeria adopt a fiscal rule that targets a structural primary balance consistent with long-term sustainability and places limits on withdrawals from the FRR. Such a rule should be established in an organic budget law. To help manage oil revenue volatility, the rule could include a backward-looking oil price formula. By imposing a long-lasting constraint on fiscal policy through legally binding limits, a fiscal rule would help contain spending pressures and thus facilitate the consolidation necessary to restore fiscal sustainability.

33. The time to act is now. Although some reforms can be implemented quickly, others will take time. Subsidy reform should be phased in only gradually to allow consumers and producers to adjust. Diversifying the economy will take years. Meanwhile, the current account balance is moving into deficit, and the horizon for hydrocarbon resources is approaching. Algeria should act now to meet its long-term fiscal challenges.

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FOSTERING EXPORT DIVERSIFICATION IN ALGERIA¹

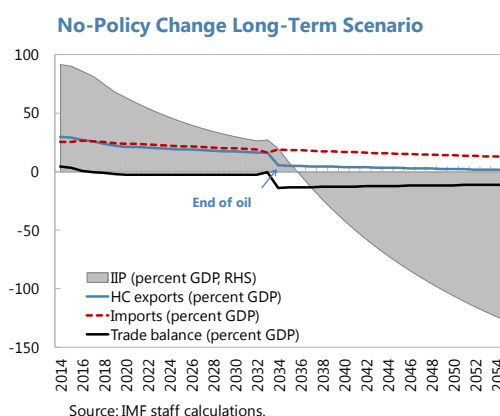
Algeria's heavy dependence on the hydrocarbon sector is unsustainable, and will lead to a major worsening of the country's external position absent a comprehensive export diversification strategy. A successful diversification strategy would entail macroeconomic policies that are geared toward supporting external competitiveness and avoiding real exchange rate swings and real overvaluation, an opening of the trade regime, and wide-ranging structural reforms to improve the business climate, including a comprehensive export-promotion strategy. Reforming the implicit subsidies on hydrocarbon products would help the economy navigate the transition by extending the lifetime of the resource.

A. Introduction

1. Algeria's development model relies heavily on the exhaustible hydrocarbon sector.

With 98 percent of its exports, 30 percent of its GDP, and 38 percent of its fiscal resources stemming directly from the hydrocarbon sector in 2013, Algeria is a highly oil-dependent country. However, the expected lifetime of the hydrocarbon resource does not match the dependency level: assuming no new discoveries, oil resources are expected to be depleted in 20 years, and gas in 55 years.

2. Under a no-policy-change scenario, Algeria's currently strong external position is expected to worsen considerably. The depletion of the hydrocarbon resource will lead to a current account deficit and a rapid worsening of the external position if nonhydrocarbon exports and capital inflows fail to increase much from their current low levels (see Box 1 for the simulation assumptions).

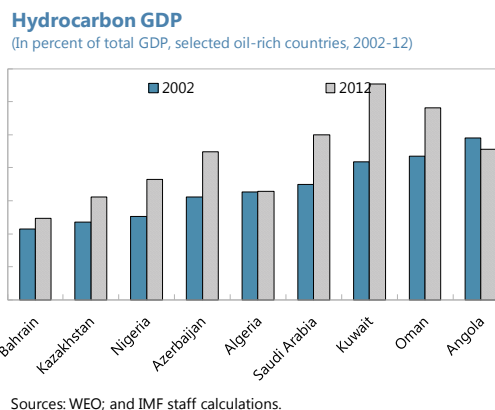
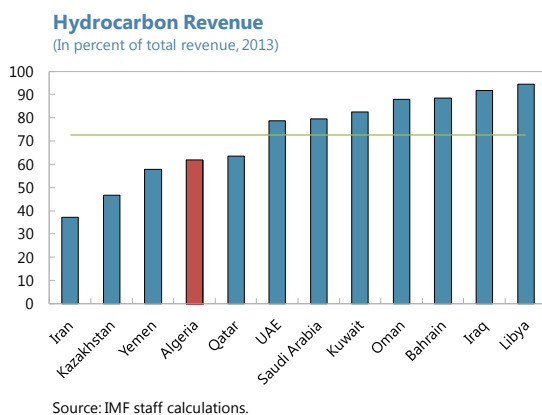


3. To ensure long-term external sustainability and secure the living standard it has achieved for its population, Algeria needs to reduce its reliance on hydrocarbon exports. This paper explores policies to achieve long-term external sustainability. Section B describes the status of hydrocarbon dependency. Section C underscores the risks to further delays in diversifying exports. Section D identifies Algeria's strengths and weaknesses against the experience of successful diversification stories; section E offers policy recommendations.

¹ Prepared by Amina Lahreche.

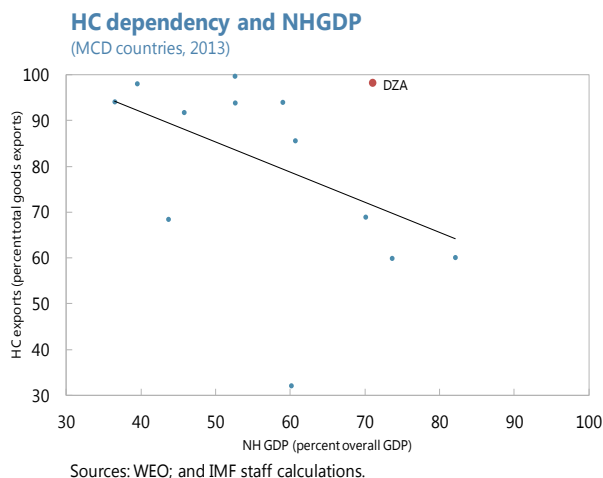
B. Algeria's Hydrocarbon Dependence: Stylized Facts

4. Algeria's economy is dependent on the hydrocarbon sector. The hydrocarbon sector accounted for 30 percent of GDP and 60 percent of government revenues in 2013. Although these shares are smaller than in most Middle East, North Africa, and Central Asia (MCD) oil exporters, nonhydrocarbon GDP is largely dependent on hydrocarbon revenue-financed public spending: for example, the construction sector is largely financed by the public sector, and public consumption is a large share of GDP.



5. Hydrocarbon dependency is particularly marked for exports.

Hydrocarbon exports account for 98 percent of total exports in Algeria. This is large in comparison to other oil exporters: for instance, the share of hydrocarbon exports in MCD oil exporters was 78 percent (non-weighted average) in 2013. The high export dependency and relatively contained share of the hydrocarbon sector in GDP in Algeria are atypical in MCD oil exporters.

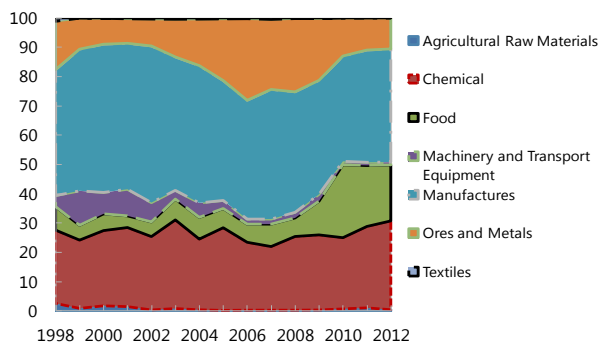


6. Nonhydrocarbon exports are dominated by chemical products and agriculture.

These flows are extremely small and scattered across a large number of product categories, reflecting a lack of strong industries or products on which to build export diversification. Services exports also appear underdeveloped, notably compared to non-oil-exporting countries, and are largely related to hydrocarbon exports.

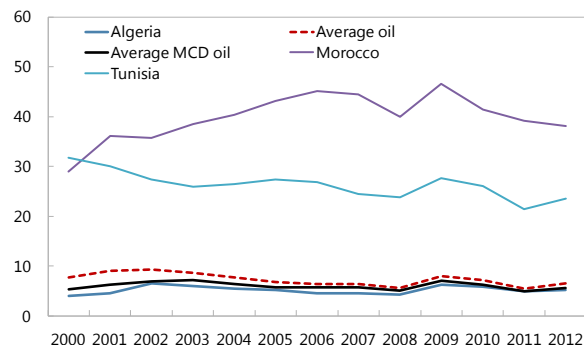
Composition of nonhydrocarbon exports

(In percent of total nonhydrocarbon exports, 1998–12)



Services in total exports

(Share of total exports, in percent)

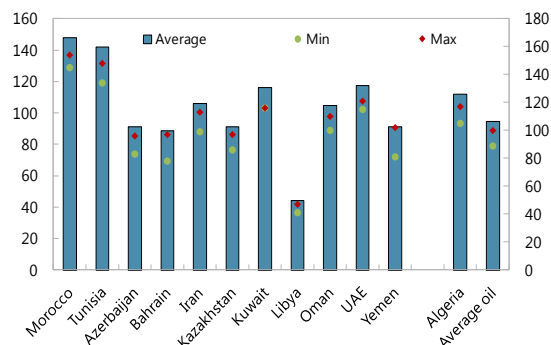


7. Algeria has a diversified set of export partners.

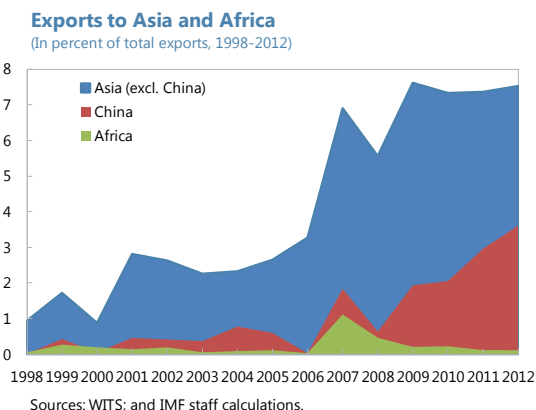
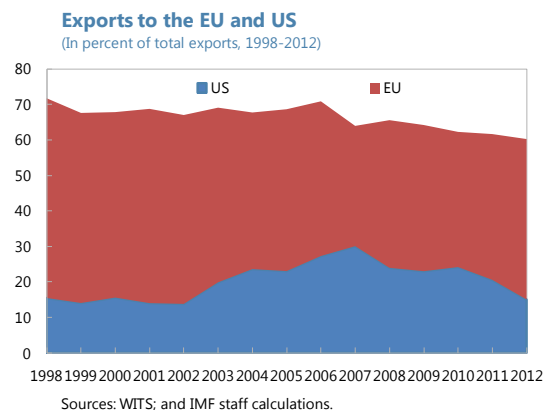
- During 1998–2007 Algeria steadily increased the number of its export partners, and has maintained a stable number of partners since then. As a result, Algeria has a somewhat more diversified set of export partners than other oil-exporting countries. Although oil dominates bilateral exports, this relatively large set of partners offers a strong base on which nonhydrocarbon exports could grow. It is, however, considerably smaller than in non-resource-rich countries such as other countries in the Middle East and North Africa.

Number of export partners

(2008–2012 average)

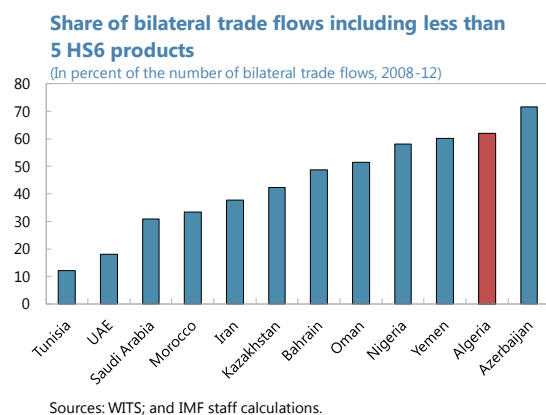
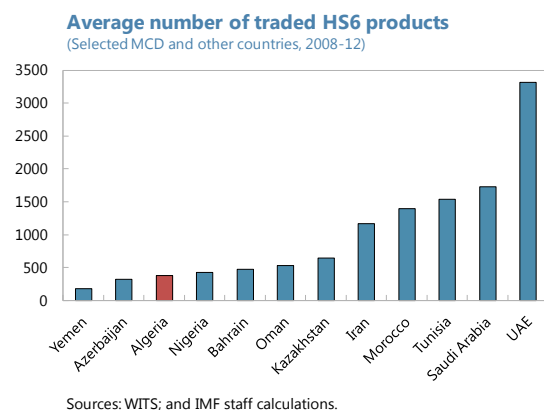


- The EU remains Algeria's main export partner, with a share that has been hovering close to 60 percent since the late 1990s, but trade with Asia has been rising recently. The share of exports to the United States has been declining quickly since its peak in 2007, largely because of the decline in U.S. hydrocarbon imports resulting from the exploitation of nonconventional oil, which is highly substitutable for Algeria's oil products. Diversification toward Asia accelerated in the mid-2000s, largely driven by exports to China. Sub-Saharan Africa remains marginal among Algeria's export partners, but represents a large untapped potential.



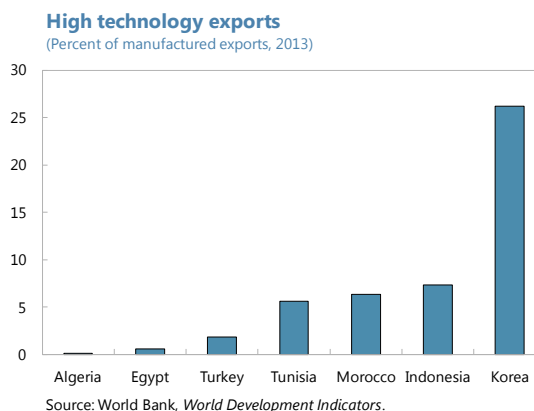
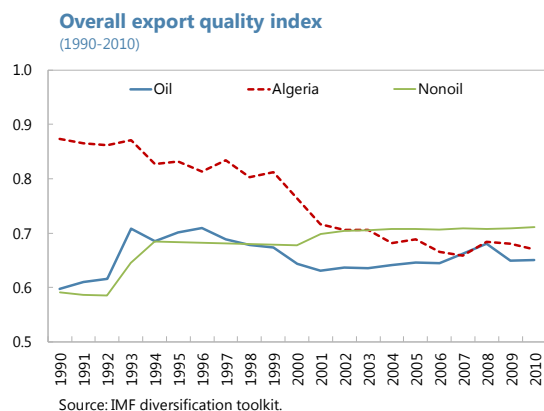
8. Algeria's trade is characterized by a very limited number of export categories per partner, and suffers from a lack of sophistication of the export basket.

- More than 60 percent of bilateral exports are made of at most five product categories (HS6 level of disaggregation), a share that has remained broadly stable over the past decade. By contrast, the average number of HS6 products traded by partner in other Middle Eastern and North Africa (MENA) countries is much higher, and the share of bilateral trade flows that count five products or fewer is much lower.



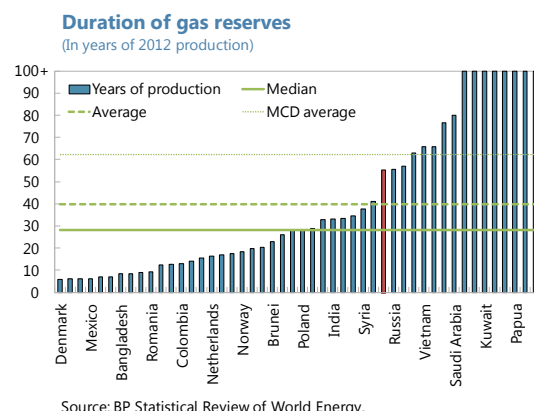
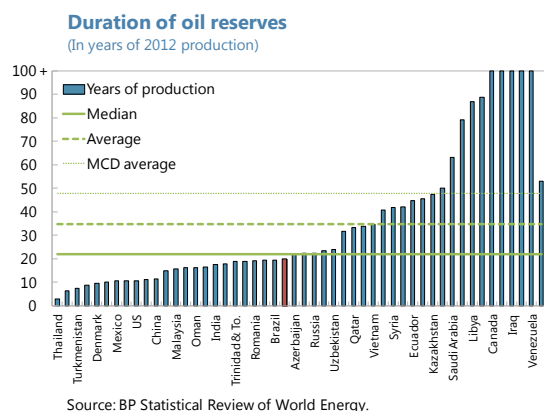
- Data also point to the lack of sophistication of Algeria's export basket. The export quality index for Algeria, which was relatively high at the start of the 1990s, has been declining since. This trend was largely driven by developments in mineral fuel exports, while the quality of nonhydrocarbon exports declined compared to oil and non-oil exporters in the second half of the 2010s. In 2010, the quality of exports was in line with the average quality index for oil exporters, but had fallen below the average of non-oil exporters, reflecting a worsening of the specialization structure of the country which can be seen in the low level of high-tech products in Algeria's manufacturing exports. The analysis of the product space of exported goods by

Hausmann and others (2010) suggests that the country is highly specialized in products that offer very little opportunity to expand the export basket. In the middle of the 2000s, the share of new exports in the basket was very low.



C. The Urgent Need for Export Diversification

9. Finding new sources of growth and exports. Algeria’s extreme dependence on hydrocarbon exports is out of line with its proven reserves, underscoring the fragility of its growth model and the unsustainability of the current account over the long term. Even though Algeria is a large producer—notably for gas—the lifetime of existing reserves is limited. Unless significant new reserves are found in the next few years, it is urgent that the country’s development and growth model rely on a more diversified productive basis. Progress achieved over the past decades in terms of development would otherwise be at risk.

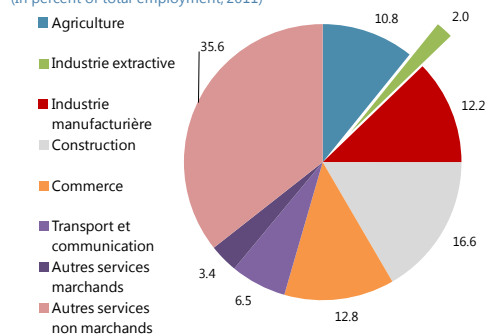


10. Creating jobs. The large increase in the workforce, expected in the next 25 years, makes the issue of job creation even more pressing, and calls for a rapid diversification of the production structure. Limited gains in employment can be expected from commodity specialization, as shown by recent experience in Algeria and other oil-exporting countries. Hydrocarbon production is highly

capital intensive, and its potential for employment creation is limited: in Algeria, employment in the extractive industries only accounts for 2 percent of total employment. The large hydrocarbon revenues support significant hiring in the public sector (notably in noncommercial services) but, as noted in Jewell (2014) and Tapsoba (2013), the level of current spending is inconsistent with long-term sustainability, given the short expected life of hydrocarbon reserves. Therefore, a model of employment financed by the hydrocarbon rent is not a long-term option for employment creation, making diversification of production and exports an absolute and urgent necessity.

Employment share by sector

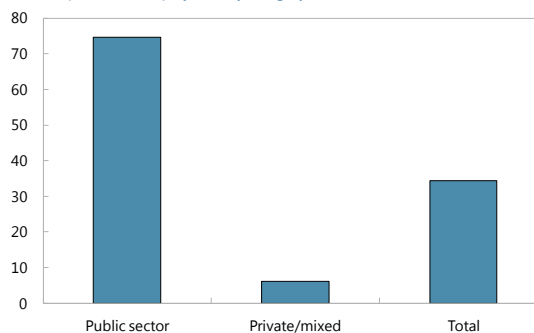
(In percent of total employment, 2011)



Source: ONS, Enquete emploi aupres des menages 2011.

Employment in Nongovernment Services

(In percent of employment by category, 2013)



Source: ONS.

11. The implications of hydrocarbon dependency are especially dire for the external position, as indicated in a simple long-term scenario (Box 1 summarizes the assumptions underlying the simulation).

- Under this baseline scenario, new discoveries allow the hydrocarbon reserves to grow at their historical rate, the current use of hydrocarbon reserves (consumption and exports) is unchanged until they are depleted, and export diversification remains limited. Foreign exchange reserves are progressively depleted to finance growing current account deficits, until they stabilize at 3 months of imports and external debt is used to fill the current account gap. This baseline scenario leads to a very rapid worsening of the international investment position starting in 2035, when oil production ends.
- An alternative scenario explores the easing of the external constraint that would be brought by a one-off 50 percent increase in proven reserves (both oil and gas). Under unchanged production and domestic consumption assumptions, the production horizon increases somewhat, but as soon as hydrocarbon reserves run out, the international investment position worsens, switching from surplus to a 120 percent of GDP deficit in eight years, underscoring that one-off new reserves discoveries bring no structural change to the long-term outlook. Because the adjustment has been delayed by the hydrocarbon discovery, imports are higher when oil reserves run out, and the international investment position deteriorates more quickly.

- A diversification scenario assesses the impact of changes to the economy's productive structure. This scenario combines structural reforms to improve Algeria's competitiveness and a relaxation of capital controls to attract foreign direct investment (FDI) in the nonhydrocarbon sector. Those measures, in turn, lead to the diversification of both production and exports. The assumptions are loosely calibrated on the macroeconomic performance of Vietnam, an oil-exporting, fast-growing economy, over 1990–2012. The scenario assumes that FDI inflows reach 5 percent of GDP per year for 20 years, before slowing down smoothly and stabilizing at 2 percent of GDP.² This critical mass of structural reforms supports higher nonhydrocarbon GDP growth (6.8 percent for 20 years, slowing down smoothly to 3 percent a year at the end of the projection period). Hydrocarbon production, exports, and consumption are unchanged compared to the baseline scenario. Nonhydrocarbon exports increase, reaching 20 percent of GDP at the end of the projection period.³ Even though higher FDI increases imports and the development of the economy also raises somewhat the GDP elasticity of imports, the trade balance improves toward the end of the projection period, and the worsening in the international investment position is contained. Further increasing nonhydrocarbon exports by 5 points (to 25 percent of GDP) yields a much improved international investment position.
- These stylized scenarios underscore the unsustainability of Algeria's external account under fundamentally unchanged policies. Extending the lifetime of oil and gas reserves relaxes the constraints somewhat but fails to relax the external constraints under the model's assumptions. External sustainability clearly depends on export diversification brought by a diversification of the productive structure through increased openness to FDI and trade.

² MCD countries recorded average FDI inflows of 5 percent of GDP during 2000–12. The long-term average FDI inflow of 2.5 percent of GDP is comparable to FDI inflows to Asian emerging countries over the same period (Hong Kong and Singapore excluded).

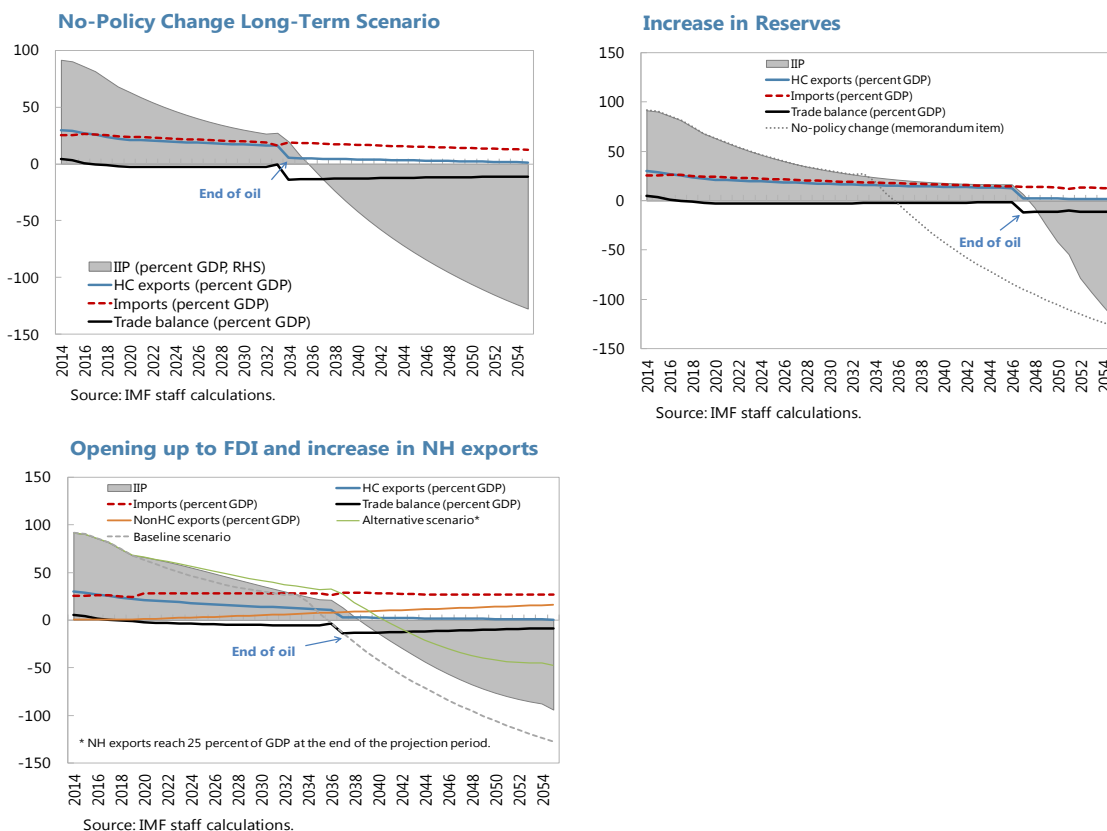
³ During 2000–13, the oil exporters that managed to increase the share of nonhydrocarbon exports in total GDP did so by 8 points of GDP on average; the dispersion of experience is large, as the standard deviation of nonhydrocarbon exports increases as a share of GDP is 12 percent. An increase in nonhydrocarbon exports by 20 points of GDP, although on the high side, remains within the standard deviation. Over the period, Bolivia managed to increase its nonhydrocarbon exports from 14.4 percent to 38 percent of GDP. In the United Arab Emirates, nonhydrocarbon exports went from 21.6 percent to 66.4 percent of GDP.

Box 1. Main Assumptions of the Baseline Long-Term Scenario

The following assumptions are used for the long-term macroeconomic model:

- Gas and oil reserves grow at the annual average historical rate of 0.6 percent and 1.2 percent respectively (BP data from 1980).
- Real NHGDP growth stabilizes at its long-term potential of 4.5 percent by the end-2020, and slows down progressively over the long term to 2 percent in 2055.
- The exportable surplus of oil and gas is constrained by domestic consumption, which increases by 2 percent for oil and 4.5 percent for gas, while production grows by 2 percent per year.
- Nonhydrocarbon exports slowly grow as a share of GDP, but remain small (4.4 percent of GDP by the end of the projection period). The other source of foreign exchange, FDI, also increases slowly and stabilizes at 2.5 percent of GDP.
- Reserves are kept at a minimum of 3 months of imports of goods.
- Debt builds up to ensure payment of imports and the stabilization of reserves.

Figure 1. Algeria: External Sustainability Scenarios



D. Policies to Diversify Away from Natural Resources: Algeria in the Light of Existing Policy Lessons

12. Cross-country experience suggests that successful diversification hinges on a combination of policies. Those range from providing a stable macroeconomic environment that preserves the competitiveness of nonresource exports; offering an enabling business climate; and developing export-promotion strategies. Measures need to be taken beyond traditional macroeconomic policies, and include, notably, labor market, financial sector, and education or innovation policies.

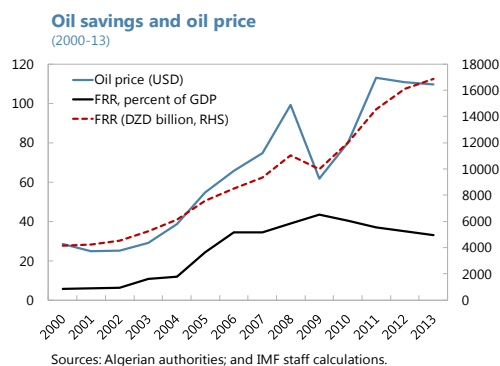
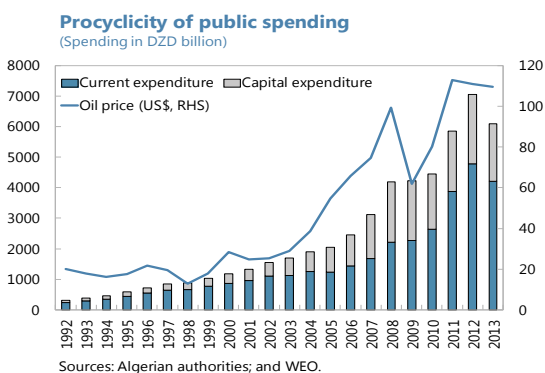
Supportive macroeconomic policies

13. Sound macroeconomic management is critical to contain the effects of the natural resource rent on the economy. Resource-rich countries are prone to the so called “Dutch disease,” which results in relative price distortions that penalize the exportable sector, stimulate imports, and lead to a diversion of productive resources away from the exporting sectors towards the nontradable sectors.

14. Overvaluation needs to be avoided for diversification strategies to succeed.

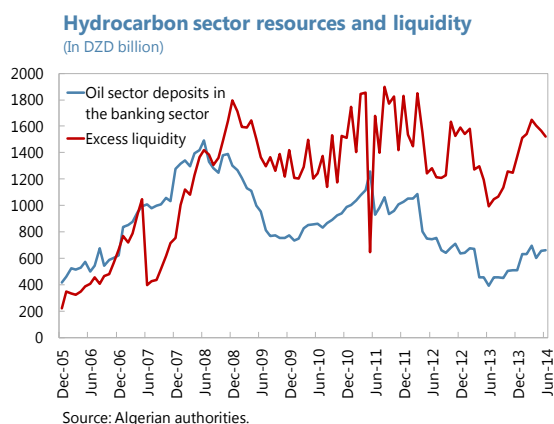
Overvaluation penalizes exports and stimulates imports that compete with domestic production (Gelb, 2010). Algeria’s exchange rate policy is appropriately designed to target a real effective exchange rate close to its fundamental value. However, the real effective exchange rate has been at times, on the strong side, notably when large increases in current spending in 2011–12 led to high inflation that was not sufficiently offset by nominal exchange rate depreciation.

15. Procyclical fiscal policies should be avoided. Procyclicality leads to overheating and risks triggering excessive real appreciation when the price of the resource and associated fiscal revenues are high. Fiscal rules that provide an anchor to fiscal policies are a useful tool for demand management; they ensure that part of the resource rent is saved, to smooth the effect of price volatility and/or to save for future generations. Algeria’s policy of saving a large part of its hydrocarbon proceeds has helped to manage domestic demand but has not been adequate at containing procyclical spending. The large wage increase of 2011, however, illustrating the limit of a policy that is not set into a binding framework, led to declining oil savings as a percent of GDP.



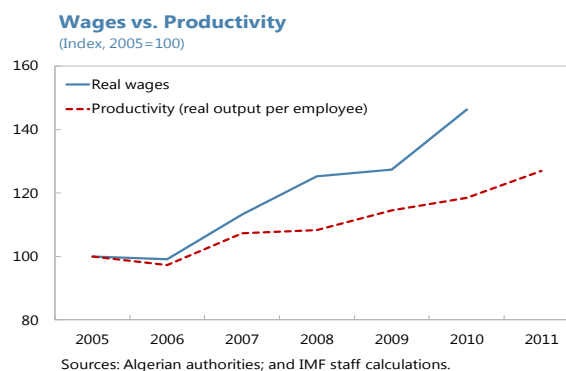
16. Domestic liquidity should be insulated as much as possible from the effects of inflows from the natural resource sector.

- Large foreign currency inflows from natural resource exports increase liquidity and can fuel inflation, leading to excessive real appreciation of the currency. In Algeria, the banking sector is not fully insulated from natural resource inflows, because hydrocarbon receipts are legally required to be held in dinars in commercial banks. As a result, deposits from the hydrocarbon sector appear to drive excess liquidity. Although the BA does have mopping-up instruments, excess liquidity suppresses interest rates and complicates monetary policy by depriving the monetary policy toolkit of use of the interest rate transmission channel.
- To insulate the economy from the effect of large swings in natural resource revenues, one option is to invest abroad part or all of the savings from the resource sector. This restrains liquidity shocks stemming from large inflows from the resource sector, and supports effective domestic demand management by containing procyclical spending, thereby helping prevent real overvaluation. A number of countries have set up sovereign wealth funds to this end.⁴ In Algeria, the oil savings fund (Fonds de Régulation des Recettes—FRR) helps to sterilize part of the excess liquidity stemming from the hydrocarbon resource, but the possibility of almost unrestricted government drawdowns limits the effectiveness of the sterilization.⁵



17. The composition of spending matters for management of external competitiveness.

- Large increases in current spending—notably through increases in public sector wages—can have a detrimental effect on competitiveness: they weigh directly on the real exchange rate through their effect on domestic demand and relative prices; they also weigh on cost competitiveness through the diffusion of public sector wage increases to the private sector. In Algeria, the

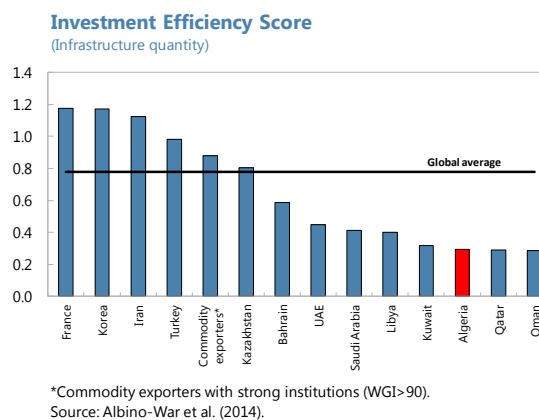


⁴ In MCD countries, Azerbaijan, Bahrain, Iran, Kazakhstan, Kuwait, Libya, Qatar, and the United Arab Emirates have sovereign wealth funds.

⁵ In addition, the effective return on the FRR (about 2 percent in 2013) is very small compared to returns of sovereign wealth funds, which creates an opportunity cost.

recent wage increases were not matched by productivity improvements, and have led to a rise in unit labor costs.

- Conversely, productivity-enhancing public spending is likely to support competitiveness: for instance investment that reduces transportation or transaction costs for businesses, or social expenditures that increase long-term productivity by enhancing human capital. Algeria has undertaken significant efforts to increase public investment, and ranked high in 2013 in terms of public investment to GDP. However, the country's investment efficiency is relatively weak in terms of both the quality and quantity of its infrastructure, as suggested by an efficiency frontier analysis (Albino-War and others, 2014). Algeria's investment efficiency score of 0.29 (in terms of investment quantity) suggests that, under ideal circumstances, Algeria could have built up to 71 percent more infrastructure with the same amount of investment.



Openness to trade and capital flows

18. Trade openness supports diversification through a lower cost of inputs and competition.

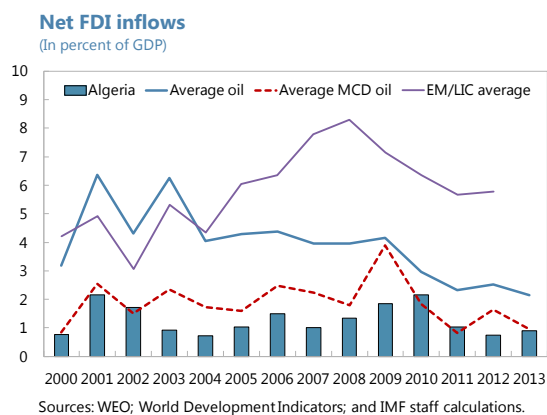
- High tariffs on imported inputs, while they may protect some infant industries, may also raise production costs in other sectors, creating distortions that prevent a rapid diversification. In addition, long-lasting protection of domestic production behind elevated trade barriers can prevent the productivity gains and innovations that are needed to promote diversification over the long term, particularly in sectors where imported inputs incorporate significant technological progress.
- Against this background, Algeria's trade openness appears limited. This is partly the result of a protective trade policy that has historically focused on import substitution as the backbone of Algeria's diversification strategy. As a result, both tariff and nontariff barriers are high, and participation in free trade agreements limited. In particular, Algeria has not joined the WTO.

19. FDI can play a crucial role in promoting export diversification and needs to be encouraged.

- The role of FDI in export diversification is a priori ambiguous: on the one hand, FDI into the natural resource sector may further tilt the export structure towards hydrocarbons; on the other hand, other FDI flows may spur output and export diversification. FDI to serve the domestic market may not affect the export structure immediately but may increase domestic output diversification and open the possibility for more diversified trade flows later; FDI to serve

external markets leads more directly to export diversification. Gourdon (2012) provides evidence that FDI significantly reduced trade concentration in a panel of 127 countries during 1998–2006.

- Against this background, Algeria’s very low levels of FDI inflow appear as a lost opportunity. This is compounded by the fact that a large share of FDI flows (more than 50 percent on average over 2009–13) is directed towards the hydrocarbon sector, suggesting that FDI flows have so far had a limited contribution to diversifying exports. Although the underlying reasons for the low level of FDI are probably manifold, the legal provision that FDI projects be majority-owned by Algerian partners (the so-called “49/51 rule”) appears as an important impediment. Indeed, Algeria was the only country of a sample of 88 to impose an overall restriction on FDI ownership, while other countries tend to have provisions for strategic sectors (World Bank, *Investing Across Borders*, 2010).



Favorable business climate

20. Business climate issues go beyond governance and the conditions for starting a business, and include financial sector conditions and labor market conditions. Low impediments to trade (both exports and imports), access to finance, and access to a large pool of well-skilled workers, are all elements that contribute to supporting the export sector.

21. In Algeria, business climate indicators are disappointing and underscore the difficulties faced by exporters. The limited development of the financial sector, the high cost of starting a business, and the cumbersome procedures all impede business development, and affect both the domestic and export-oriented sectors. In addition, the exporting sector further suffers from the high cost of trading,⁶ and capital controls can further complicate businesses’ attempts to expand their activities abroad.

	Impediments to Trade				
	Cost (in US\$ per container, 2013) of		Time to (in 2013)		Logistics Performance Index Rank, 2014
	Export	Import	Export	Import	
Algeria	1,270	1,330	17	27	96
Morocco	595	970	11	16	n/a
Tunisia	775	860	13	17	110
Egypt	625	790	12	15	n/a
Turkey	990	1,235	13	14	30
Iran	1,470	2,100	25	37	n/a

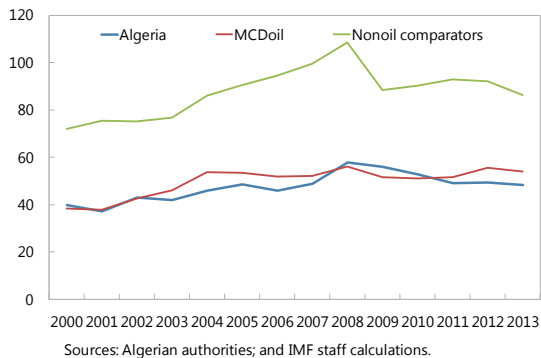
Source: World Bank, *Doing Business*; and Logistics Performance Report 2014.

⁶ In a study of African countries, Freund and Rocha (2010) notably underscore the fact that transit delays have the most economically and statically significant effect on exports.

Figure 2. Algeria's Trade Openness

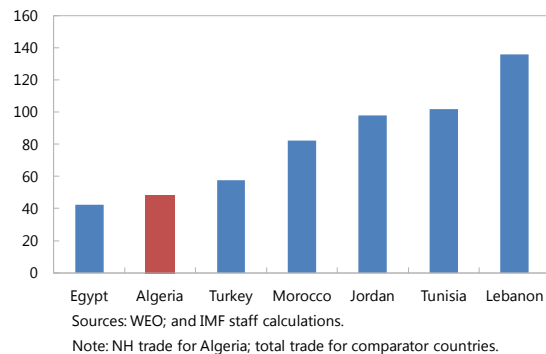
Algeria's trade openness is comparable to other oil exporters, and considerably lower to nonoil countries

Nonhydrocarbon openness
(NH exports and imports in percent of NHGDP)



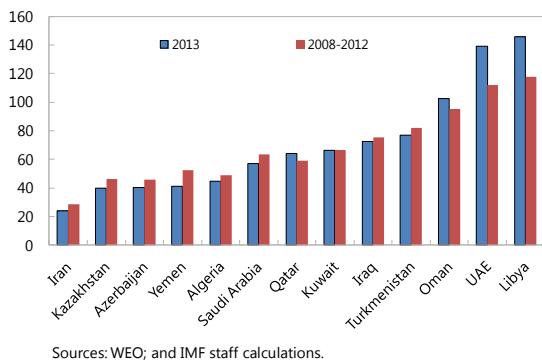
It is one of the lowest among nonoil comparators in the region

Trade openness
(Total trade in percent of GDP, 2013)



The import to NHGDP ratio is relatively low

Imports openness
(Imports in percent of NHGDP, 2013)



Tariff barriers ...

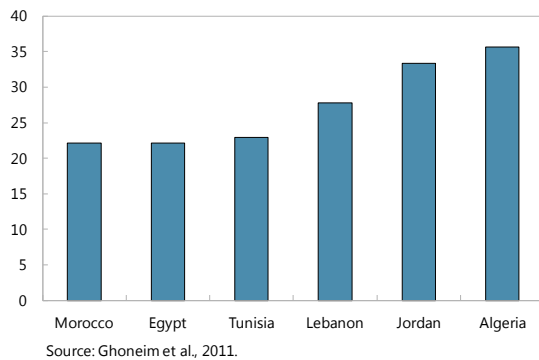
MFN tariffs

	Average	Standard deviation	Coeff. of variation
Malaysia (2013)	5.3	6.0	1.1
Mexico (2013)	9.7	10.4	1.1
Turkey (2011)	12.4	23.9	1.9
South Korea (2013)	16.0	37.5	2.3
Morocco (2012)	16.1	18.1	1.1
Tunisia (2012)	18.3	12.8	0.7
Algeria (2010)	20.3	7.9	0.4
Egypt (2012)	29.2	174.4	6.0

Source: WTO.
Note: averages and standard deviation computed on tariffs at the 2-digit level.

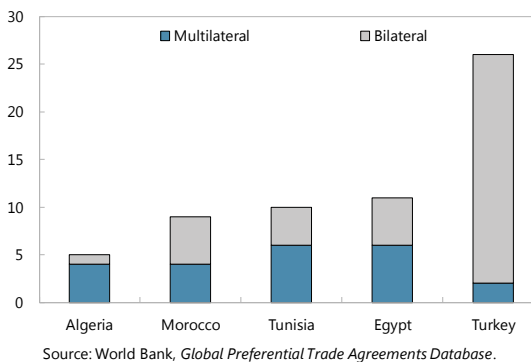
... and non-tariff barriers are high...

Ad-valorem equivalent of non-tariff barriers
(In 2009)



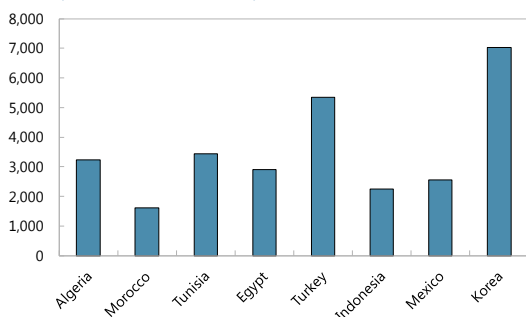
... and trade agreements are few

Free trade agreements
(Number of FTAs)



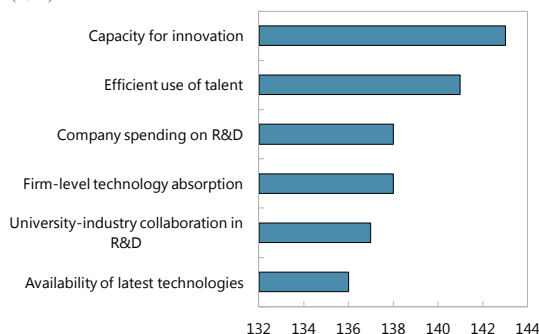
22. An environment that fosters productivity is instrumental, as demonstrated by the experience of successful countries that were able to target both productivity increases and large employment gains. Algeria has important strengths, such as a large, educated labor force; but the country suffers from skills mismatches because education is not well targeted to businesses' needs. In addition, Algeria's innovation capacity appears limited, another impediment to developing products and services that can be competitive on international markets.

Number of students in tertiary education
(Per 100,000 inhabitants, 2011)



Source: World Bank, *World Development Indicators*.

WEF Rankings on Innovation
(2014)



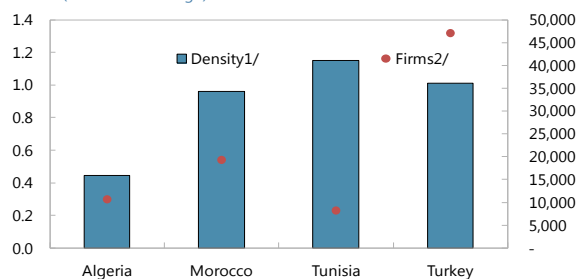
Source: World Economic Forum *Competitiveness Report 2014/15*.

Export strategies

23. Export promotion strategies can help increase the volume and the variety of exports. A World Bank study (López-Cálix and others, 2010) suggests that export promotion strategies should focus—beyond ensuring macroeconomic stability and a sound business climate—on reducing the anti-export bias and improving trade facilitation and access to services. This implies reducing the information asymmetry exporters face when trying to enter new markets. Export promotion policies generally include support in identifying markets, meeting quality requirements in target markets, or designing an appropriate marketing policy.

24. Policies to foster export diversification should focus on supporting “first movers” as they enter the market (as opposed to supporting already established actors). Existing experience includes the Egyptian private association ExpoLink approach of identifying strong entrepreneurial producers of traditional goods, creating small business clusters and providing targeted training on exporting. The Tunisian Famex provides grants and technical assistance to firms with no previous export experience, to exporters of new products, and to exporters who seek to penetrate new markets.

Entrepreneurship
(2004–2012 average)



Source: World Bank, *World Development Indicators*.

^{1/} Number of newly registered companies with limited liability per 1,000 working-age people.

^{2/} Number of newly registered corporations during the calendar year.

25. Industrial policies can also be considered to support selected sectors, although caution is called for in light of the risks associated with “picking winners.” There can be a case for industrial policies when dynamic economies of scale or knowledge spillovers affect a sector; when coordination failures prevent a sector from developing; or when informational externalities also prevent the development of a sector (Pack and Saggi, 2006). The international experience of the past 50 years suggests “picking winners” and supporting infant industries can be difficult, because excessive government protection tends to lower incentives to seek productivity improvements and enhance international competitiveness. Industrial policies should, therefore, be carefully focused on sectors with high export potential and strong integration into international value-added chains. These sectors should be supported by policies that foster backward linkages; technology spillovers can be useful in supporting industrial development and export diversification. Other “soft” industrial policies, consisting for instance, of increasing openness to FDI, or setting up industrial clusters and export processing zones, can also be instrumental, as shown in the case of the Indian software industry.

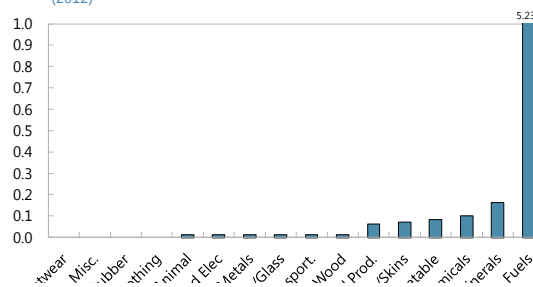
Energy policies: Diversification takes time.

26. Cherif and Hasanov (2014) stress that countries like Indonesia, Malaysia, and Mexico—all relatively successful cases of diversification away from hydrocarbon resources—prepared the ground for diversification before oil revenues started falling. It took 28 years (with data starting in 1970) for Indonesia to increase the share of nonhydrocarbon exports in GDP by 20 percentage points; 20 years for Malaysia; and 40 years for Mexico (starting from a low exports-to-GDP ratio). In the case of Algeria, the lifetime of the hydrocarbon resource appears short, and the exportable surplus is increasingly jeopardized by a rapidly growing domestic consumption that is supported by very low domestic prices. Slowing down the rate of growth of domestic consumption may help buy time to undertake the necessary reforms. A scenario simulating the impact of lowering domestic implicit subsidies to contain the growth of domestic demand shows that although such a policy would not prevent the exhaustion of the hydrocarbon rent, it would help contain the worsening of the external position, giving the authorities some space to implement the policies for supporting nonhydrocarbon sector exports (Box 3).

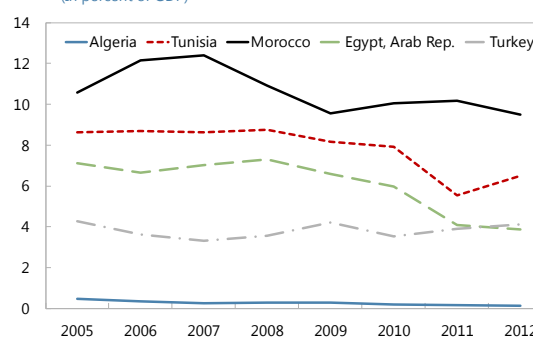
Box 2. Algeria's Untapped Potential for Diversification

- *International evidence suggests that a successful diversification strategy hinges on both horizontal and vertical differentiation.* In the oil-exporting countries that achieved successful diversification, the policy mix included the promotion of vertical diversification in sectors where they had a comparative advantage (oil, gas, petrochemicals) and horizontal diversification beyond those sectors, with an emphasis on technological upgrade and competition on international markets.
- *Algeria has important potential for vertical diversification in the hydrocarbon sector.* Hydrocarbon exports are mostly made of crude oil and gas, with limited exports of refined products or hydrocarbons byproducts, suggesting that the potential for vertical diversification into higher value-added products is sizeable. Indeed, beyond the country's obvious edge in fuel exports, revealed comparative advantages point to potential strengths in the mineral and chemical industries.
- *The potential for horizontal diversification is also sizable, and not fully reflected in Algeria's revealed comparative advantages.* These point to large potential in the agribusiness sector.¹ Relatively high rates of higher education suggest that the country may also develop a potential in human-capital-intensive activities. There are also areas of largely unfulfilled potential, notably in tourism, where receipts fall way below those in neighboring countries, despite Algeria's considerable resources.

Revealed comparative advantages
(2012)



Tourism Receipts
(In percent of GDP)



Sources: World Development Indicators; and IMF staff calculations.

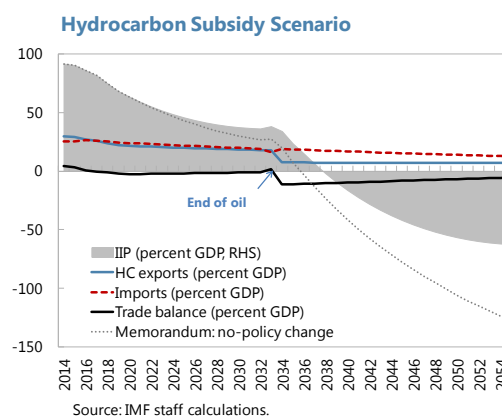
1/ Hausmann and others (2010) offer an in-depth statistical analysis of sectors where Algeria has a potential to diversify. Those sectors include meat, dairy, and fishery products; agro-industrial products and chemicals; steel and aluminum; metal products; and shipbuilding.

Box 3. Buying Time: The Role of Implicit Hydrocarbon Price Subsidies

In the medium term, external sustainability is closely related to the large implicit hydrocarbon subsidies. These have a two-pronged effect on external sustainability. First, they disconnect domestic prices from international prices, which leads to informal trade and smuggling, and loss of (notably tax) resources through lower formal exports. Second, they feed the rapid growth of domestic consumption that weighs on hydrocarbon exports.

A progressive adjustment of domestic prices that curbs consumption growth in the long term to just 1 percent a year would not reverse the worsening of the international investment position that will ensue from the exhaustion of the hydrocarbon resource, but it will significantly contain the buildup of net debt.

It is therefore important to contain the growth of domestic energy consumption by phasing out implicit subsidies. The most vulnerable segments of the population can be protected through appropriate compensation measures, such as targeted cash transfers. In the meantime, a policy to diversify energy sources—notably through the development of renewable energy—would help to ensure the provision of sustainable energy for the country.



E. Policy Recommendations

27. Macroeconomic policies should be geared toward supporting external competitiveness and avoiding real exchange rate swings and real overvaluation.

- *The BA should maintain its policy of targeting the real effective exchange rate in line with its equilibrium level.* It will be important for the authorities to complement the existing assessment tool with additional instruments that could provide useful information as to the country's competitiveness in a broader context, or in comparison to its most important competitors in nonhydrocarbon exports (Box 4).

Box 4. Strengthening Algeria's External Competitiveness Monitoring

The BA's exchange rate policy of keeping the real effective exchange rate close to its fundamental value is appropriate and has served Algeria well. Algeria has avoided large swings in the real effective exchange rate, and the currency has remained broadly in line with fundamentals over the past few years, though sometimes on the strong side.

The real exchange rate target is built from an Algeria-specific, backward-looking equation. It is derived from an Algeria-specific econometric estimate that tracks the behavior of the real effective exchange rate against its fundamentals over the past, with regular updates. The methodology is useful for assessing the path of the exchange rate against its predicted value from the behavior of the fundamentals, but cannot identify the optimal exchange rate path in the context of the country's needed diversification. It is also limited in its ability to provide information on Algeria's competitiveness relative to its main competitors, because it focuses largely on the country's competitiveness against its main trading partners.

Algeria's exchange rate policy would gain from a widening of the set of available tools. For instance, assessing the real equilibrium exchange rate within a panel of countries would provide useful information regarding the desirable level of the exchange rate. Monitoring Algeria's competitiveness relative to a set of potential competitors in the nonhydrocarbon sector would also provide useful additional information to the BA in its endeavor to maintain the real effective exchange rate at an appropriate level. Finally, cost competitiveness should also be monitored (see Jewell, 2014).

- *A full-fledged fiscal rule would help manage the risks of procyclical fiscal policies.* Implementing a fully-fledged fiscal rule, such as the one proposed by staff in 2013,⁷ would help both move the country's fiscal saving toward a sustainable path and improve demand management, thereby containing overvaluation risks.
- *Domestic liquidity needs to be insulated from the hydrocarbon sector.* Setting up a full-fledged sovereign wealth fund would not only increase the government's earnings from its oil savings, but would also ensure a better insulation of the economy from the hydrocarbon resources. Revising the rules that require Sonatrach deposits to be held in dinars in Algeria would also help by reducing the excess liquidity in the banking sector.
- *Public wage increases need to be contained and linked to productivity improvements.* This would help contain adverse developments in unit labor costs that impede competitiveness.
- *Over the medium term, the focus should be on improving the efficiency of public investment.* Efforts to improve the appraisal, selection, implementation, and ex-post evaluation of public investment will be required. The transition to a medium-term budget framework will be critical

⁷ The rule or proposed framework includes a realistic reference price for savings, a floor on the primary structural balance, and a full-fledged investment strategy for hydrocarbon savings. See the 2013 Staff Report on the Article IV consultations, IMF Country Report No. 14/32 (<http://www.imf.org/external/pubs/cat/longres.aspx?sk=41304.0>).

for addressing fiscal vulnerabilities and aligning investment projects with strategic government priorities.

28. Greater openness to trade and capital flows is needed to improve Algeria’s international integration.

- *Progressively opening the economy would create incentives for productivity gains and diversification.* Algeria should swiftly join the WTO and address the high cost of tariff and nontariff barriers. An appropriate export promotion strategy should accompany this opening.
- *Attracting FDI—and, notably, export-oriented investors—is key.* This would require, in addition to the measures geared toward supporting Algeria’s export competitiveness, a revision of the “49/51” law, to limit its application to strategic sectors, while opening nonstrategic sectors to foreign investment.

29. Wide-ranging structural reforms are needed to improve the business climate.

- *The cost of starting and operating a business needs to be lowered,* including through a reduction in the number of administrative procedures and their simplification to reduce the time and costs required for compliance. An overhaul of the business taxation system is needed, notably to eliminate the tax on turnover (*Taxe sur l’activité professionnelle*, TAP) and replace it with a more efficient source of revenue. Access to finance—notably for SMEs—also needs to be enhanced, which would notably require a more effective guarantee system, and a full-fledged credit information registry for SMEs. All these measures would support a faster rate of new business creation, which is needed for the private sector to thrive.
- *Public investment should be targeted to infrastructure and sectors with positive spillovers to the rest of the economy,* such as logistics, transportation, power supply, and ICT, with a view to supporting private sector productivity. Further, the quality of public investment should be carefully monitored.
- *These measures should be framed by an export-promotion strategy that would address all aspects of the export process,* and notably the cost of trade. An export promotion policy, covering not only the marketing of Algeria’s products but also quality and supply chains policies, would help export-oriented entrepreneurs
- *Policies are also needed to enable innovation.* These include continued investment in education and better cooperation between higher education and businesses. The institutional environment should be made more inviting to capital venture firms and angel investors, who play an instrumental role in financing innovation.

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FOSTERING PRIVATE SECTOR JOB CREATION IN ALGERIA¹

Algeria's labor market is characterized by a persistently high unemployment rate and a low employment ratio. With a growing working-age population, developing policies that will foster job creation in the private sector is both a necessity and a key to faster growth. Within a comprehensive policy agenda for strong and sustainable job creation, effective supply-side policies would improve the functioning of the labor market by boosting labor force participation, building a skilled workforce, and facilitating the reallocation of labor to productive uses.

1. **Algeria's key challenge is to create enough jobs for its growing working-age population.** At current low labor force participation rates, Algeria will need to create 2.3 million jobs by 2030 to absorb new entrants to the labor force. Progressively bringing labor market participation from 40 percent to 60 percent will require the creation of 5 million new jobs by 2030.
2. **This challenge presents a unique opportunity.** Algeria is at a point in its demographic transition where the working-age population is large relative to nonworking age groups. This demographic "window of opportunity," if met with policies geared toward the creation of high value-added jobs, can lead to faster growth and savings accumulation.
3. **A comprehensive policy agenda, encompassing areas beyond the realm of labor market policies and regulations, is needed for strong and sustainable job creation that realizes Algeria's unique opportunity.** Experience in successful emerging markets shows that this agenda starts with a favorable and stable macroeconomic environment, and includes policies that level the playing field among enterprises; improve access to productive resources and financial services to all parts of the population; and encourage firms to take advantage of market opportunities and technological developments. In the case of Algeria, this agenda also includes policies to diversify the economy into sectors that are more labor intensive (see SIP on diversifying exports in Algeria); contain public sector employment, which crowds out private sector employment; and favor investment projects that create local employment.
4. **A comprehensive policy agenda for strong and sustainable job creation also needs to include supply-side policies that lay the groundwork for a better functioning labor market.** Appropriate education systems help prepare the future workforce for the needs of private sector employers; effective labor regulations and institutions, and social protection systems, facilitate the reallocation of labor to the most productive uses while protecting workers; and active labor market policies can foster job opportunities for vulnerable groups, such as youth and women.

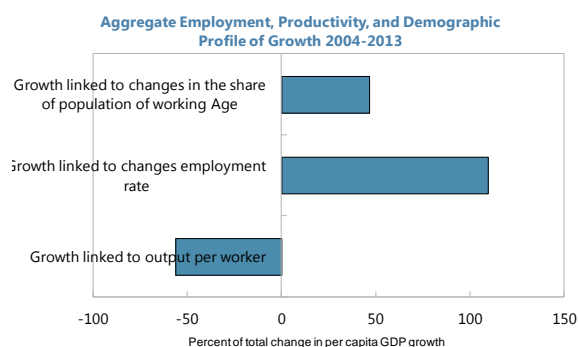
¹ Prepared by Gaëlle Pierre.

5. This paper focuses on these supply-side policies. It provides an update on the performance of the labor market using recent data; analyzes current policies that influence the functioning of the labor market—education and training, labor market policies, and labor market regulations—and reflects on how they can be improved. It then provides a picture of what the performance of the labor market would look like in the near term under different assumptions of growth and reforms.

A. The Performance of the Labor Market

6. A growth decomposition shows that the increase in the share of working-age population and in employment were positive contributors to GDP growth

between 2004 and 2013. At the same time, the contribution of output per worker was negative. Had productivity stayed the same over the period, per capita GDP growth would have been 17.7 percent instead of 11.3 percent. A change in the structure of the population alone would have generated 5.3 percent per capita GDP growth over the same period.

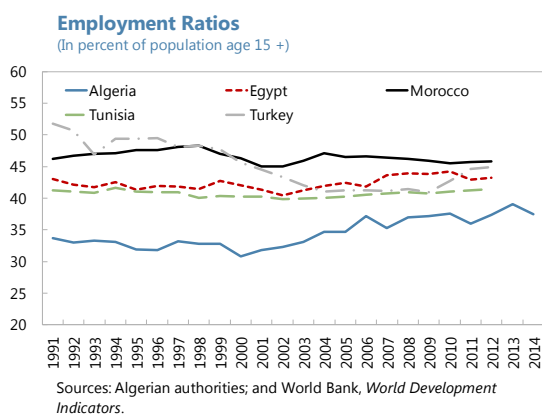
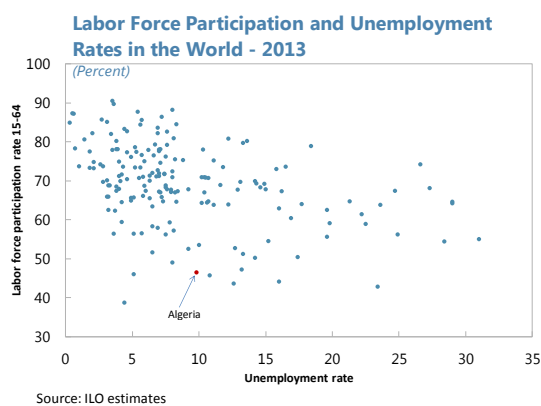
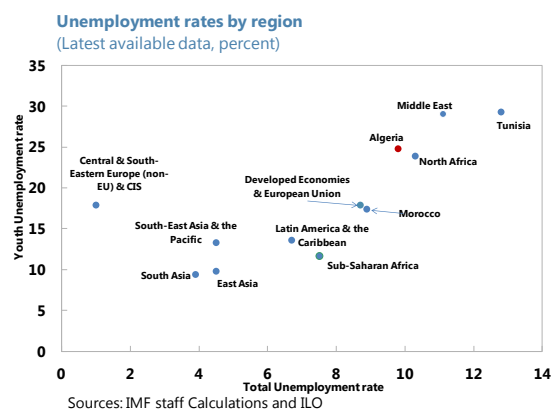
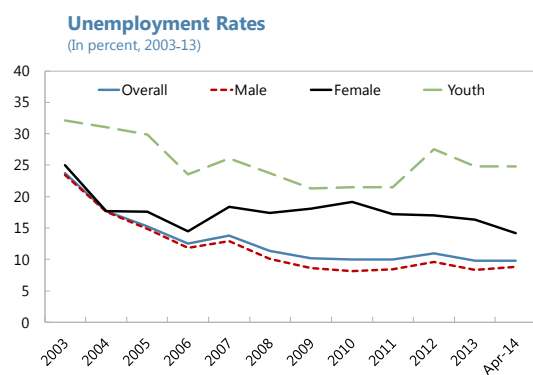


7. Algeria is in the so-called “window of opportunity,” with a large share of its population being of working age. Youth aged 15 to 24 represent 30 percent of the working-age population. As fertility rates started declining in the 1990s, the ratio of nonworking age groups (under age 15 and 65 and older) relative to the working age groups (ages 15 to 64) has shrunk. As generations reach retirement age, the age dependency ratio will rise again and the demographic dividend will eventually decrease. This may happen soon: a recent upturn in fertility, if sustained, may also put greater pressure on the labor market. Algeria needs to choose the social and economic policies that will realize the gains in growth and productivity that the rise in the working-age population can generate (Assaad and Roudifahimi, 2007).

8. A large share of the working-age population remains outside of the labor force. The labor force participation rate—at 47 percent—is very low by international standards, mostly because female and youth labor force participation rates are low. However, the issue is not confined to these groups. As a result, without policy changes, Algeria’s labor force growth is projected to slow down from about 2 percent a year, to 1 percent a year within the next decade (ILOSTAT Database, 2014).

9. Unemployment is high and, after decreasing in the first half of the 2000’s, has now stalled. At 9.8 percent in April 2014, Algeria’s unemployment rate is slightly better than in the Middle East (11 percent) and North Africa (10 percent), with neighboring Tunisia and Morocco at 13 percent and 9 percent respectively. Long-term unemployment is also significant; about

64 percent of the unemployed had been looking for a job for more than a year as of April 2014.² This is a particular concern, because long-term unemployment is associated with detachment from the labor force, de-skilling, and long-term negative career impact (ILO, 2013). Job seekers of both sexes have to be flexible in order to find a job, the majority of job seekers accept jobs that are below their competencies, that do not correspond to their profile, and that belong to any sector of activity. Women are less flexible than men; only about a third (compared with three-quarters of men) accept a job far from their home, and few accept a job in another *wilaya* (province) or a job that is considered arduous.



10. The unemployed tend to be young males. The unemployed tend to be young (43 percent were under 25 years old and 69 percent were aged below 30 years old in 2013) and male (68 percent); they are also mostly located in urban areas (73 percent). The vast majority of the unemployed have reached an education level above primary (job seekers with an education at the primary level or below represent less than 14 percent of the unemployed), and 22.3 percent of the unemployed have a higher education degree.

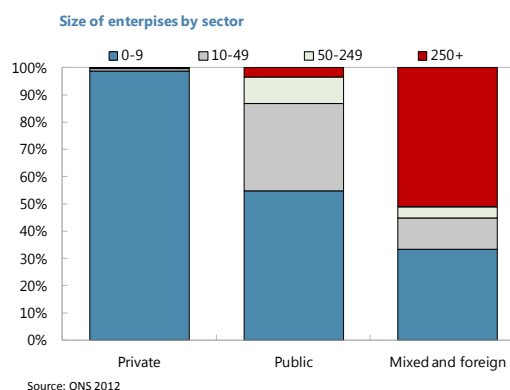
² Unless otherwise stated, labor market performance data come from the labor force survey (ONS 2013, 2014).

11. The significant decrease in unemployment between 2004 and 2008 was achieved through both modest private and public sector employment creation, accompanied by small net gains in the labor force. Between 2008 and 2013, employment creation picked up, especially in the public sector. Since net entry into the labor force also picked up, the employment-to-working-age-population ratio, which is low by international standards, started to improve, while unemployment remained stable at around 10 percent. However, data for the first trimester of 2014 show a slight decline in the employment-to-working-age-population ratio, caused by a decline in employment in both the public and private sectors. This did not affect the unemployment rate because labor force participation declined.

12. There has been an increase in formal employment measured as the share of employment covered by social security. The share of jobs covered by social security benefits has risen from 48 percent of total employment in 2004 to 57.6 percent in 2013. This formalization of employment occurred in the context of the public sector being a large net employment creator, creating nearly 4 times as many jobs as the private sector between 2009 and 2013. The latter mostly created informal jobs—defined as not affiliated to social security.

13. There has been a significant increase in more precarious, fixed-term employment. The share of fixed-term employees/trainees increased from 23 percent to 33 percent of total employment between 2004 and 2013 (unchanged as of April 2014), leaving the share of permanent employment unchanged at about 36 percent. The increase in the share of fixed-term employment can be linked to the creation of fixed-term employment in the public sector. The share of fixed-term employees increased from 18.6 percent of public employment in 2010 to 23.3 percent in 2013.

14. The private sector is dominated by low-productivity activities. Private sector employment is characterized by a very small proportion of permanent employees (7.5 percent); this share remains largely unchanged in 2013 compared with 2010. The large majority of employment in the private sector is composed of self-employed and fixed-term employees/apprentices (respectively 42.1 percent and 39.8 percent of private employment). Just above 70 percent of private sector employment is in firms that have fewer than five employees. The private sector is also dominated by small firms in sectors that tend to have low productivity. In the nonagricultural sector, 99 percent of private enterprises have less than 10 employees. Just over half of total private sector employment is shared between the commerce and construction sectors; other sectors with more potential such as manufacturing or transport and telecommunications represent only 12.9 percent and 7.6 percent of employment respectively.

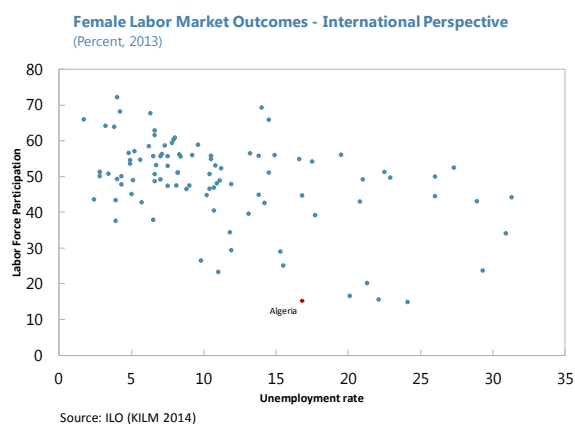


15. Youth unemployment is very high. Like other countries in the MENA region, Algeria has very high youth unemployment, at about 23.2 percent for 20–24 year-olds and 30.1 percent for 15–

19 years-olds in April 2014. In addition, 24.4 percent of youth in the 16–24 age range were not in the labor force or in school. Youth unemployment is usually higher than overall unemployment because the youth have higher job turnover, possess smaller social networks, lack labor market information, have less work experience, and are often targeted by “last in-first out” rules. It is of particular concern because youth who do not transition smoothly from school to work often see lower expected lifetime labor income and long-term impact on career paths. The high share of unemployment among the 15–24 age group means that many who leave school at the end of the compulsory stage of education become unemployed at a time when they should be building up skills. This is especially an issue in countries like Algeria where youth represent an important share of the population.

16. Young women are at a particular disadvantage. Only a small share of young women participate in the labor force (about 9 percent in April 2014), and they have a higher unemployment rate than young men (36.7 percent as against 22.4 percent in April 2014). Moreover, there is a dichotomy between the situation of a majority of young women who are in school (55.4 percent as against 45.9 percent for young men) and a significant share of young women who are neither in school nor in the labor force; 35.8 percent of young women were not in the labor force or in school, compared with only 13.3 percent of young men in April 2014.

17. More generally, women’s participation in the labor market is low and their unemployment is high. Women’s labor force participation has marginally improved in the past 10 years, but remains below 17 percent, largely below most other countries in MENA, the region with the lowest women’s labor force participation rate in the world. The unemployment rate of women who participate in the labor market has stagnated since 2007, leading to a situation where the gap between men and women has increased, because men’s unemployment rate has been steadily decreasing.



18. Employed women tend to be in relatively better-quality employment than men, but they work fewer hours. Women who do work are mostly employed in the public sector. This is consistent with the fact that women are more likely to be on permanent contract than men. They are also more likely to be affiliated with social security than men (72.3 percent of working women are affiliated with social security, as against 54.4 percent of working men).³ They are, however, more likely to work part-time than men. About 39 percent of women work less than 34 hours a week, compared with 17 percent of men

³ This may also be because affiliation through other household members may be counted.

(April 2014). A significant share of women are therefore underemployed, in the sense that they work less than 40 hours a week and are willing and available to work additional hours. Results for 2013 indicate that 29 percent of working women are underemployed against 18.6 percent of men. Underemployment decreases with educational attainment; from 24.5 percent of uneducated women to 17.5 percent of women educated at the tertiary level.

19. There is a dichotomy between young, educated women who are active in the labor market and older, uneducated women who remain inactive. Women who hold a tertiary-level degree are very likely to participate in the labor market (70 percent in April 2014) and to be employed (59 percent), while women with no education mostly stay out of the labor force (4.2 percent of uneducated women participate in the labor force). Looking at participation rates by age shows that participation peaks at about 25–29 years old (33 percent in April 2014). Women are most likely to participate between 25 and 34 years of age. They then seem to be dropping out of the labor force once they start families (the average age at the birth of the first child is 31.5 years old). This means that women are finding it hard to reconcile work and family life. This is confirmed in the 2012 time use survey, which shows that participation in remunerated work is strongly negatively correlated with the number of children and their age.

20. Moreover, women’s economic activities may not be recorded accurately, leading to a lack of understanding of women’s work. Recent surveys show a small increase in women’s labor force participation in all age groups. This may partly reflect a better account of their activities; an important share of women currently reported as “housewife” may actually be carrying out casual work, largely in the informal sector. The time use survey indeed suggests that women aged 12 and over who stay at home are working, according to the ILO definition,⁴ for an average of three hours. Moreover, women working in the private sector often work from home (this is the case for the 46.7 percent of women who worked in the private sector in 2013). Take-up of the ANGEM⁵ scheme illustrates this point: nearly 62 percent of beneficiaries are women, most notably for activities carried out from home. In contrast, about 10 percent of the financing distributed to create micro-enterprises through the ANSEJ⁶ goes to young unemployed women.

21. Employment tends to be more precarious in rural areas. Labor force participation rates are similar in urban and rural areas (April 2014), but urban areas have higher unemployment rates;

⁴ Persons who during a specified brief period such as one week or one day, (a) performed some work for wage or salary in cash or in kind, (b) had a formal attachment to their job but were temporarily not at work during the reference period, (c) performed some work for profit or family gain in cash or in kind, (d) were with an enterprise such as a business, farm or service but who were temporarily not at work during the reference period for any specific reason.

⁵ ANGEM is a scheme administered by the Ministry for Solidarity, Family and Women. It offers microcredit to finance small-scale economic activities to individuals with low income who cannot secure credit by themselves because of lack of collaterals, etc. Microcredit is used to finance at-home activities, purchase of raw materials, or small material necessary to start up an activity.

⁶ The ANSEJ scheme targets young unemployed. See section D for a full description.

the unemployment rate was 10.7 percent in urban areas in 2013, as against 8.0 percent in rural areas. Employment in rural areas is more precarious than in urban areas; in the latter 40 percent of jobs are permanent, versus 27 percent in rural areas. This may partly be because a higher share of employment is public in urban areas, and because a larger share of employment is in the agriculture sector in rural areas (23 percent of employment). The labor force is slightly younger in rural areas (22 percent of youth versus 16 percent in urban areas).

22. Overall the picture suggests a large part of the working age population is not able to contribute fully to productive activities. Algeria's labor market excludes an important part of the population—especially women but also males—and the stable unemployment rate hides a situation where the public sector has increasingly been taking on the role of employer. Public sector employment grew from 34 percent of total employment in 2004 to 41 percent in 2014, creating mostly fixed-term jobs, whereas the private sector has created few jobs, most of them informal.

B. The Supply of Labor

23. Educational attainment has improved over the past 15 years. As in other countries of the MENA region and elsewhere, the share of adults without education has been dropping for both men and women, and dropout rates from the primary level of education have been reduced significantly. For example, the dropout rate from primary education was 7 percent in 2011, down from 24 percent in 1990; adult literacy rates have been increasing significantly for both men and women, reaching 72.6 percent in 2006. The literacy rate is lower for women (63.9 percent) than for men (81.3 percent), but the gender gap has been steadily decreasing. Women have been catching up with men in several other measures of educational attainment. For example, average years of schooling for women have increased from 4.8 in 1995 to 7.5 in 2010, while average years of schooling for men increased from 7.7 to 9.1 over the same period. In universities the completion rate has been also improved from about 6 percent in the early 1970s to 23 percent in 2010/11.

24. These results have been brought about by a strategy to rapidly raise enrollment at all levels, including tertiary. Net enrollment rates in primary school for men and women reached near universality in recent years (2008–12, UNESCO) at 98.4 percent and 97 percent respectively for boys and girls, while the net attendance ratio in secondary schooling reached 57.4 percent for boys and 64.5 percent for girls. From very low levels, Algeria has steadily improved the number of students registered in tertiary education from about 12,000 students in the early 1970s to more than 1 million in 2010/11. The increase has been especially pronounced since the 1990s, mostly because of an important increase in the number of students in humanities and social science (65 percent of registered university students and 70 percents of graduates were in social science in 2010/11).

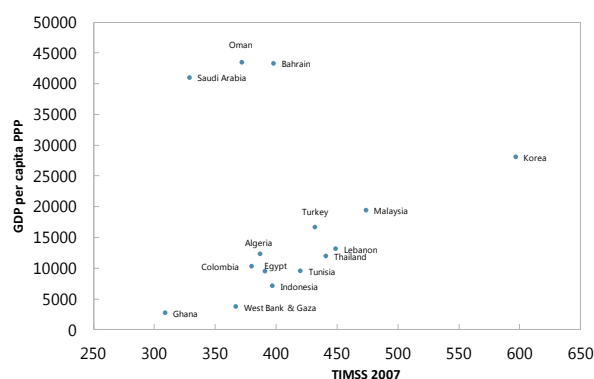
25. However, learning outcomes remain below par in the international context, and the quality of education is in question. Available data (TIMSS, 2007) show that Algeria was at the bottom of the range of test scores for countries with similar levels of GDP per capita. With a score of 387, Algeria was among the 25 percent of 49 countries surveyed with the lowest scores in eighth-grade mathematics and among the 25 percent of 36 countries surveyed with the lowest scores in fourth-grade mathematics with a score of 378. The large increase in capacity, for example through

an important increase in the number of teachers, has not been accompanied by rigorous monitoring of quality.⁷ Moreover, drop-out rates are significantly higher in secondary education (after reaching the compulsory age of schooling), and even higher in tertiary education.

26. Secondary-level vocational studies carry negative stigma and are associated with worse outcomes in the labor market.

Despite the progress in educational attainment outlined above, the share of workers with secondary-level education remained stable between 2004 (21 percent) and 2013 (22 percent), suggesting that higher educational attainment did not translate into greater access to employment. Moreover, in Algeria and other countries of the region, secondary level vocational studies are a second-best for students, and there is evidence that they are undersubscribed.⁸ This is partly explained by the fact that students who engage in vocational studies have little opportunities to transfer to other parts of the education system, and also by the course content, which are somewhat detached from the realities of the labor market. Because the courses are taken up mostly by students with weak academic results, they end up carrying a negative stigma for students. Labor force surveys show that unemployed workers who have technological diplomas are more likely than those with higher education diplomas to be long-term unemployed.

Average mathematics scores of eighth-grade students, by country: 2007



27. Secondary and tertiary education overwhelmingly trains students in the humanities and social science, lacking a focus on hard science. As most job opportunities have been created within the public sector, education systems have been geared towards producing graduates with the skills required for public sector employment or more simply with the skills to pass public sector employment entry exams. The large majority of tertiary-educated workers are in the public sector and this has been increasing (72 percent of tertiary-educated workers were in the public sector in 2004, this share rising to 78 percent in 2013). Tertiary-educated workers represent 31 percent of public sector workers, while they represent only 6 percent of private sector employment.

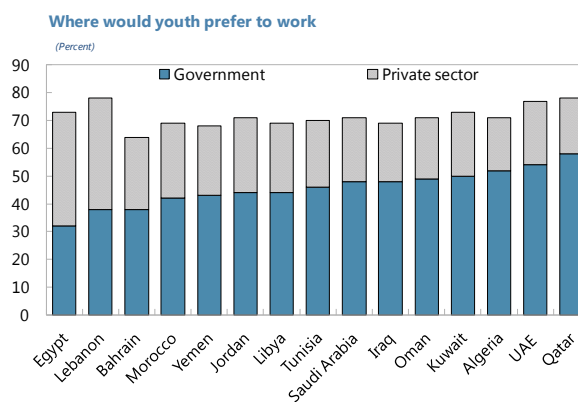
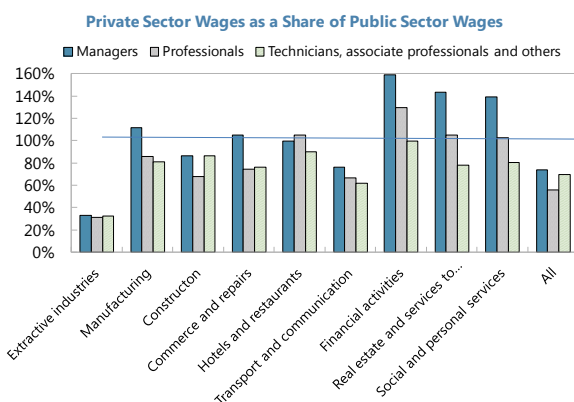
28. Consequently, higher educational attainment only partially translates into improvement in labor market outcomes. The increase in educational attainment has translated into a more highly educated workforce. Over the period 2004–13 the share of workers without any education decreased from 15 percent to 9 percent, while the share of workers with tertiary degrees increased from 10 percent to 16 percent. Better educated workers are more likely to participate in

⁷ Unesco, 2012.

⁸ European Training Foundation, 2014; World Bank, 2008.

the labor market; while about 45 percent of working-age individuals with primary education participated in the labor force in 2013, 57 percent of those with higher degrees did. However, the latter are also more likely to be unemployed. In April 2014, women who have a tertiary level education face an unemployment rate of 15.9 percent against 4.4 percent among uneducated women. Similarly, tertiary-educated men face a 9.7 percent unemployment rate, against 2.9 among uneducated men. The share of highly educated workers in employment (16 percent) is slightly lower than the share of those workers in the labor force (17 percent), showing that, among the active, there is no education premium in terms of employment. Tertiary-educated job seekers are less likely to become long-term unemployed than job seekers with less education, but long-term unemployed still represented 47 percent of educated women and 64 percent of educated men in April 2014. This is partly because educated workers voluntarily extend their job search in order to secure employment in the public sector.

29. Public sector employment is more attractive. A recent survey of youth shows that 52 percent of surveyed youth would rather work in the public sector, a share that is high compared with other countries of the MENA region. Moreover, there is a wage premium to working in the public sector; on average public sector wages are above those offered in the private sector. This is true across sectors and most occupations, except for high-level occupations in sectors such as financial services, real estate, or personal services.



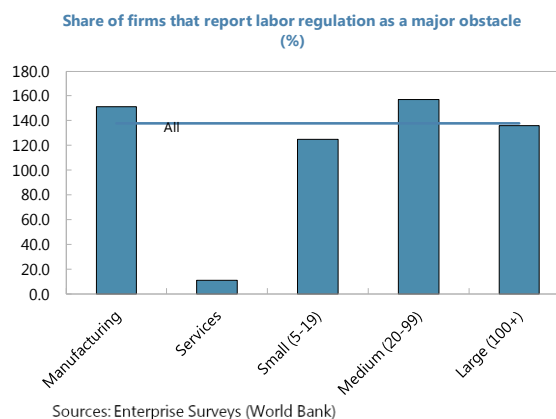
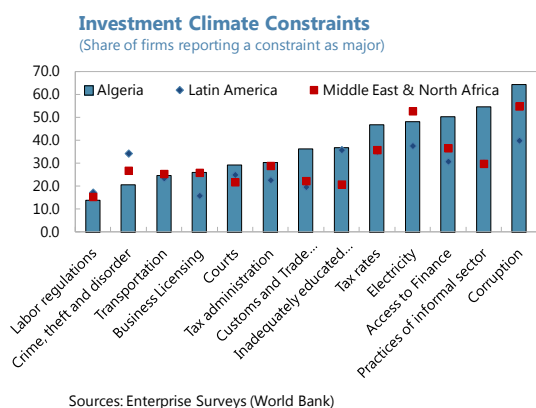
30. Moreover, there are significant skills mismatches in the labor market. Skills mismatches are likely to exist in any labor market; however, they can impair productivity and competitiveness gains if they are too wide. International evidence suggests that workers may be inadequately equipped for the demands of employers, not only in cases where they lack education, but also, when they do not possess the competencies that employers need. Opinion polls show that Algerian employers are constrained by a lack of skills in the labor force; nearly 60 percent of public sector employers and 35 percent of private sector employers report that skills are lacking. Moreover, more than 65 percent of public sector employers and 56 percent of private sector employers report having difficulties in filling vacancies, especially at the professional and managerial level. Among the 13 main constraints that firms generally face in the business environment, an inadequately educated workforce comes sixth (Enterprise Surveys, World Bank). The recent economic census, which covers public and private sector enterprises, suggests that only 14.4 percent of enterprises report difficulties in finding new

recruits. The proportion of enterprises reporting such difficulties is higher in the private sector, especially among manufacturing firms, where 22.3 percent of respondents reported difficulties. Looking further into disaggregated responses would probably help identify which firms and sectors are the most constrained in terms of their access to qualified work force.

C. Labor Market Institutions and Social Protection

Labor market institutions

31. Uneven enforcement of regulations, rather than labor regulation *per se*, is among the most important constraints of the environment in which Algerian businesses operate. The Enterprise Survey of 2007 reveals that, as in other middle- and low-income countries, labor market regulations are the least reported as a major obstacle by firms in Algeria. This is not surprising because other obstacles are more pressing. In particular, Algerian businesses point to corruption, informality, and lack of access to finance as important constraints. The first two reported constraints suggest that a more pressing issue may be that regulations, including labor regulations, are enforced inconsistently. Interestingly, the survey results also show that Algerian businesses tend to be more likely than the MENA average to report business climate elements (except electricity and crime, theft and disorder) as major constraints to doing business.



32. However, inadequate labor regulations can have several negative effects on the labor market. First, labor regulations may affect different types of firms or in different sectors to varying degrees. For example, more dynamic firms, which may be looking to recruit, would be more affected than other firms. Similarly, medium-sized firms, which are not able to remain under the radar like small firms, or have fewer resources for dealing with regulations than large firms, may be the most likely to complain of labor regulations. Second, as the country reforms the other aspects of its business environment, labor regulations that are too stringent can prevent the reallocation of labor to most productive uses. The impact of excessive labor regulations on the reallocation of labor has been recognized in the international literature (e.g. Haltiwanger and others, 2014). Third, labor regulations may simply be avoided through employing workers informally, which is symptomatic of a more general issue of weak enforcement of regulations. The latter can be particularly damaging, because it is often associated with generally inconsistent enforcement of regulations, which keeps the playing field uneven.

33. In the law, hiring and firing regulations are particularly stringent for workers with short tenure; hiring new workers in Algeria is costlier than in most countries of the world.

The most striking feature of labor regulations in Algeria is that they do not allow more flexibility for workers with short tenure.⁹ In particular, while in other countries severance pay and dismissal notice periods tend to increase with tenure, in

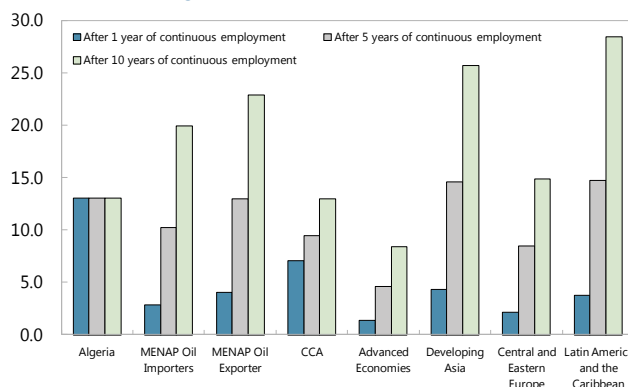
Algeria they are the same for all workers.

Similarly, the number of paid annual leave days is the same for all workers, while, on average, other countries increase the number of paid leave days as tenure increases. Moreover, the minimum wage for a trainee or first-time employee represents about 42 percent of value-added per worker, which is 10 percentage points higher than the median ratio among the countries that

have a minimum wage. When the

impossibility of hiring workers under fixed-term contracts for permanent tasks is added to the picture, hiring new workers in Algeria is costlier than in most countries of the world. In addition, Algeria has some restrictions on dismissals that are applied in less than half of countries included in the World Bank's Doing Business database: it requires notifying a third party before dismissing one redundant worker; retraining or reassignment obligation before an employer can make a worker redundant; and priority rules applying to redundancy dismissals or layoffs.

Severance Pay for Redundancy Dismissal
(In weeks of wages)



Sources: Doing Business (World Bank)

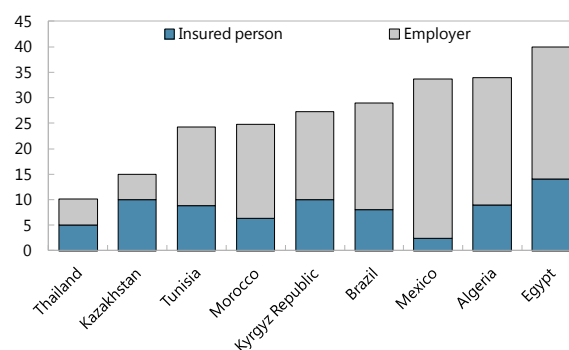
34. Moreover, several work regulations are stringent compared with world practices. In particular, there is no flexibility in adjusting working hours in periods of high demand, something which has become recently more popular among many countries, especially after the 2008 crisis, and is now applied in 93 percent of the countries of the world included in the Doing Business database.

Social protection

35. The social protection system strives to be comprehensive.

Algeria's social protection system includes programs that cover all types of risks: old age, sickness, and unemployment, as well as social assistance directed at low-wage earners. The total contribution rates for all those programs tend

Social Security Contribution for Algeria and middle-income countries with same types of programs



Source: Social Security Programs throughout the World

⁹ See World Bank, Doing Business Database

to be on the high side compared with other middle-income countries that also provide all these types of programs. Moreover, it has among the highest share of employers' contribution. Beyond the actual level of contributions, it is important that the services provided under these programs meet worker's expectations. As long as workers are ready to pay for the services, social contributions do not by themselves distort the labor market.

36. Unemployment insurance benefits few job seekers. The unemployment insurance system imposes stringent eligibility criteria. Job seekers have to follow a number of requirements to be able to register to receive unemployment benefits, and their previous employer is required to make a payment and register them on a list beforehand (see Box 1). Given the cost to employers, who are already likely to be in a difficult financial position, there is a high probability that employers will not register their workers. These issues, as well as the difficulty of firing workers in practice, and the fact that the implementing agency (CNAC) has been refocusing on entrepreneurship schemes in recent years, mean that very few unemployed individuals actually receive unemployment benefits. The number of job seekers receiving unemployment insurance is 120 in 2014.¹⁰ The job seekers who continue receiving unemployment benefits are mostly long-term unemployed who are reaching the end of their benefits. Current beneficiaries include job seekers who have been able to continue receiving benefits between periods of short-term employment.

37. The unemployment benefits system does not currently fulfill its insurance role. Apart from the fact that few job seekers actually receive benefits, the design of the unemployment does not currently permit its full use as an insurance mechanism. The requirement that employers make a large provision at the time of dismissal means that the system runs into some of the disadvantages of severance pay. In particular, as with severance payments, there may be a high risk of noncompliance, especially because firms are likely to already be in financial difficulties when they are trying to fire some of their workers. In practice in Algeria, the unemployment insurance requirements, combined with stringent firing regulations and significant severance pay requirements, lead to a situation where firing is extremely difficult.

¹⁰ This represents 0.08 percent of the unemployed who have been fired or lost their jobs when their firm closed down. An exact coverage rate would be calculated out of potentially eligible unemployed (i.e., those who have paid social security contributions and were made redundant for economic reasons), but we do not have this information.

Box 1. Unemployment Benefits Scheme

Unemployment benefits were created in 1994 to alleviate the negative impacts of structural adjustment policies. The implementing agency (CNAC) was created and put in charge of ensuring that job seekers received financial compensation while looking for new jobs. Since its inception the unemployment insurance system has registered around 200,000 job seekers.

The eligibility criteria for unemployment benefits include: having an open-ended contract, having been registered to social security for a total time of at least three years, being registered and having paid contributions to unemployment insurance scheme for at least six months before the end of employment, being on the list of salaried workers who have been made redundant for economic reasons, not having refused a job or retraining opportunity, not having income from another economic activity, having been registered with ANEM for at least two months, and residing in Algeria. Once they receive the unemployment benefits, recipients must present themselves every month to the CNAC to attest that they are still unemployed.

In addition to the social security contribution, employers have to pay to the CNAS an amount of 80 percent the average monthly salary received in the latest year of employment for each year worked by redundant workers who have been employed three years or more, up to a maximum of 12 months. Employers must also file a number of administrative documents, including a list of the names of the workers who have been made redundant.

The duration of unemployment benefits is calculated based on the tenure of job seekers in their last job, with a minimum of 12 months and a maximum of 36 months. Benefits amount to two months of benefits for each year of tenure with the latest employer (one month every six months). The benefit itself is calculated according to a reference wage (actual wage + minimum wage divided by 2). The benefit period is then divided into four periods, during which the benefit decreases from 100 percent of reference wage in the first period, to 50 percent of the reference wage in the last period. The actual duration of benefits has averaged 23 months, out of a maximum duration of 36 months.

D. Active Labor Market Policies

38. Active labor market policies (ALMPs) can help foster job opportunities for groups who are vulnerable in the labor market. They have become a policy of choice in many countries for policymakers who want to address unemployment, but they require careful implementation, because they can be costly and their benefits may be limited. To be successful, ALMPs have to adapt international best practices to the country circumstances and goals of the government. Moreover, it is essential to note that ALMPs do not increase aggregate employment levels in the short term; they mostly affect the structure and dynamics of the labor market. In the long term, by reintegrating groups that were essentially out of the labor force, ALMPs can increase the effective labor supply, thereby putting downwards pressures on wages and easing recruitment. They tend to be more efficient in the context of general employment creation in the economy.

39. ALMPs are a major component of Algeria's national employment strategy.

Five agencies in charge of implementing labor market policies provide job intermediation, employment subsidies, and support to entrepreneurship (see Box 2). They cover the entire Algerian territory: each is organized around central departments (ANEM) or a head office (all others), regional centers, *wilaya* offices, and local offices for the ADS and ANEM. Algeria has devoted 1.4 percent of

GDP to active labor market policies in 2014 (1.5 percent in 2013). This represents a high number by international standards; the average spending on active labor market programs in OECD countries was 0.6 percent of GDP in 2011, ranging from 0.01 percent in Mexico to 2.3 percent in Denmark (OECD, 2013).

Box 2. Active Labor Market Policies—Five Employment Agencies

The provision of labor market policies and workfare is organized through five agencies: the national employment agency (ANEM); the social development agency (ADS); the national youth employment support agency (ANSEJ); the national unemployment insurance fund (CNAC); and the national agency for the management of microcredit (ANGEM). The ANEM, ANSEJ and CNAC are administered by the Ministry of Labor, while the other two are administered by the Ministry of National Solidarity.

The ANEM's core mission is job intermediation; as part of this mission, it initiated a youth employment program (DAIP) in 2008. The aim of the ADS, created in 1996, is to reduce poverty through pro-poor employment programs and social inclusion programs. ANSEJ was created in 1996 to support youth employment through the creation and expansion of microenterprises. The CNAC's initial goal was to organize the payout of unemployment benefits, especially during the structural adjustment program in the 1990s. In recent years, it has been providing active support for the creation of microenterprises among 30–50 year-olds. The ANGEM was created in 2014 to provide microcredit to poor people to finance small-scale activities, in order to reduce poverty, social exclusion, informality and unemployment.

Job Intermediation

40. The public employment agency (Agence Nationale de l'Emploi (ANEM)) is solely responsible for job intermediation. The agency has been providing job intermediation services since the 1990s. The law requires employers to publish vacancies and hire workers through the ANEM, and penalties for noncompliance have been introduced since the early 2000s.¹¹ In recent years, the ANEM has extended its local network from around 150 agencies in 2006 to 263 in 2014. This expansion has been accompanied by an increase in the staffing of these agencies, from one agent for 2,814 job seekers in 2006 and one agent for 210 job seekers in 2013. The Labor Ministry reports that the ANEM has increased its coverage, first by increasing the number of job vacancies recorded from about 86,100 in 2005 to about 349,200 in 2013, and 263,200 in the first eight months of 2014. This represents about 23 percent of the stock of job seekers as of April 2014. The ANEM increased its coverage of the private sector market, with 71 percent of job offers coming from this sector in 2013, as against 65 percent in 2008. Within the same period, the number of placements done through ANEM increased from about 64,100 in 2005 to 309,200 in 2013, and 220,200 in the

¹¹ There is anecdotal evidence that employers can even receive a prison sentence.

first eight months of 2014.¹² The ANEM has also improved its services to employers, especially in reducing the number of days it takes to provide candidates for a vacancy from 21 to 5.

41. Private provision of job intermediation is limited but is expanding thanks to information and communication technology. The ANEM officially recognizes 20 private employment agencies, including several websites. The reach of private providers is very limited; they place about 6,000 job seekers per year. But there is evidence that, together with the increased use of the internet in Algeria, an increasing number of job seekers use websites to find jobs; in 2012, more than 65 percent of published job vacancies were online.

42. Such broad responsibility may force the ANEM to spread its resources too thin. A large share of unemployed workers is registered with an employment agency. About 60 percent of all job seekers register through employment agencies, and the proportion increases with educational attainment: while 51 percent of unemployed with no diploma were registered with employment agencies in April 2014, 90 percent of those with tertiary degrees were. The fact that the ANEM is the main agency responsible for placing all job seekers and responding to all vacancies places enormous demands on the agency, and at the same time places constraints on employers who may then be reluctant to post any vacancies at all. Despite recent improvements, the ratio of staff to job seekers remains far from the recommended 1 for 100 that the ILO recommends (Kuddo, 2012). Moreover, by serving all workers, the staff of the ANEM is spread thin over a wide range of needs and qualifications, for which it may not be fully trained. At the same time, a significant number of job seekers would probably require only limited help, being the best placed to know where to look for a job, and being able to use resources made available through media such as the internet. By refocusing on the job seekers who have the greatest difficulties in the labor market, the ANEM could improve its service.

Subsidies and tax exemptions

43. Algeria has favored wage subsidies and tax exemptions to employers, especially for the hiring of first-time job seekers. The ANEM proposes three types of subsidized employment for first-time job seekers under the DAIP program (Dispositif d'Aide à l'Insertion Professionnelle) depending on their level of education: the CID (Contrat d'Insertion des Diplômés) for general and professional tertiary-level graduates, the CIP (Contrat d'Insertion Professionnelle) for youth who have completed secondary education or equivalent vocational level, and the CFI (Contrat Formation-Insertion) for youth with no education. Under each contract, the state contributes to the salary of the worker for a period of two to three years, and for an amount that depends on the contract. In addition, under the CTA (Contrat de Travail Aidé) employers receive social security tax exemptions and further contribution from the state to the salary for three years for any job created after the end of the scheme or for any young job seekers.

¹² These numbers did not translate into an increase in overall employment (employment was observed to have decreased over the first trimester of 2014); this suggests the rate of job destruction was higher.

44. These programs cover a large number of workers and represent an important investment. The number of beneficiaries of these programs has varied significantly over recent years, reaching a peak of 660,810 youths placed in a contract under the DAIP in 2011, down to about 139,000 in 2013. In 2014, the number of placements in August was 75,300; this suggests a further decrease in placements. Since its inception, the program placed about 1,800,000 individuals. These placements cost 400 billion Dinars during the period June 2008 to August 2014, and were financed directly from the government budget. This represents roughly 198,500 Dinars per placement per year. Spending on DAIP represented about 10 percent of the spending on transfers from the 2013 budget in June of that year, down to 9 percent in June 2014. The placements were spread roughly equally across the three types of contracts, but the CID represented 55 percent of the spending since the start of the program.

45. Their long-term impact remains unclear. Some evidence that the DAIP scheme leads to limited permanent employment creation is in the number of CTAs financed. Since 2009, the total number of CTAs is 170,800, which represents only about 9 percent of all placements under the DAIP. Most of the CTAs (54 percent) were made for beneficiaries of the CID, which suggests that the other contracts are less successful in making beneficiaries sufficiently attractive to employers. This could be because youth do not gain enough skills and experience over the duration of the contract or because the jobs performed are temporary. Despite the large numbers of jobs created under the DAIP, most jobs are likely to be temporary, and the long-term impact of these programs remains unclear because there is limited monitoring and no evaluation.¹³

Entrepreneurship schemes

46. Entrepreneurship schemes are the centerpiece of active labor market policy in Algeria. They are implemented by three agencies. Young entrepreneurs (19–35 years old) are covered under the ANSEJ, while older entrepreneur (30 to 50 years old) are covered under the CNAC. The third agency (ANGEM) provides microcredit to poor individuals, mostly for small-scale activities. The loans of these agencies are built around the same financing models (see Box 3); they differ mostly in the groups of individuals that they cover. This means there is overlap across those agencies, responsibilities are spread over agencies that do not necessarily communicate well, and there is likely duplication of work and scattering of financial resources.¹⁴ In practice, there may be few checks to prevent individuals from switching from one scheme to the next.

¹³ See for example Musette (2014).

¹⁴ Ibid.

47. Despite the large number of funded projects and subsidized jobs created, there is little evidence as to the long-term impact of these schemes. A large number of projects are financed

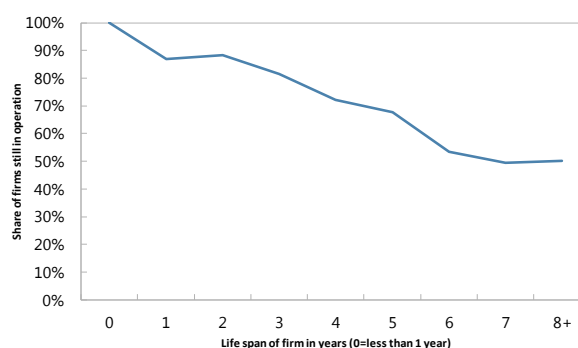
through these schemes. For example, the ANSEJ reports that during the January 2010–August 2014 period, about 200,000 projects were funded, with an estimated 436,500 jobs potentially created. However, this estimation is based on projected job creation; there is no information regarding either the actual number of jobs created or the survival rate of micro-enterprises. In the meantime, over the period 2010–13, the operating and equipment budgets spent on the ANSEJ

amounted to 8,365 million Dinars, representing a cost of about 22,114 Dinars per potentially created jobs, while the cost of financing amounted to 579 billion Dinars (i.e., about 3,380 thousand Dinars per project). Both the CNAC and ANSEJ have plans to improve the monitoring of the projects by surveying the beneficiaries of these schemes. Preliminary results¹⁵ from the CNAC scheme suggest that about 1.8 jobs were created per firm on average over the entire period of the project (2004–14), lower than the previously expected number of jobs. The survival rate currently estimated for enterprises created under the CNAC scheme is high.¹⁶ These preliminary numbers, as well as qualitative evidence, suggest that the enterprises benefit from protracted help by the agency.

48. Moreover, there is growing evidence that a large number of loans are nonperforming.

The terms of the loans tend to be favorable, with long grace periods, which make it difficult to gauge the extent of non-repayments. Evidence provided under the CNAC suggest a rate of default rate of 2.35 percent over the period 2004–14.

Survival rate of firms created under CNAC scheme



Source: Algerian Authorities (Preliminary results of follow-up survey)

¹⁵ So far 16,289 firms have been visited, among which 11,730 could be confirmed as still operating. The survey is ongoing and 22,360 more firms are being targeted.

¹⁶ Around 70 percent of firms are still in operation after five years, while international evidence that about 80 percent of new firms generally fail within the first five years of existence.

Box 3. Entrepreneurship Schemes for the Unemployed

The entrepreneurship schemes targeted at job seekers registered with the ANEM offer the possibility of financing microenterprise projects for qualified job seekers. The ANSEJ is designed to help job seekers aged 19 to 35 years old, while the scheme financed under the CNAC is targeted at 30- to 50-year-olds. The schemes are the same in both cases. Financing is for a maximum of 10 million Dinars. They both propose “triangular” financing, whereby bank financing amounts to 70 percent of the loan (subsidized), 29 percent a no-interest loan by the ANSEJ/CNAC, and a 1 percent personal contribution by the beneficiary. For loans above 5 million Dinars, the personal contribution is increased to 2 percent, and the agency contribution is decreased to 28 percent of the amount of the loan. In the case of the ANSEJ, there is also the possibility of having loans financed by the agency (29 percent for less than 5 million Dinars or 28 percent for more than 5 million Dinars), and the beneficiary.

Since 2011, complementary no-interest loans have been granted for up to 1 million Dinars to finance renting business premises for beneficiaries with higher education, for activities in some sectors such as medical, actuarial, or design. Loans are also granted for beneficiaries with vocational degrees, up to 500,000 Dinars for the purchase of a business vehicle, or for financing a production unit. In addition, entrepreneurs under these schemes benefit from tax exemptions for the first two to three years and start paying taxes progressively over a three-year period.

The training provided under these schemes is limited to a one-week, training in entrepreneurship skills. The agencies are in charge of helping applicants to formulate their project, and of evaluating the feasibility of the project. They provide advice on potential sector activities. Applicants who have no qualification are directed to vocational training institutions. In cases where applicants do not have formal diplomas or qualifications, the CNAC also requests a “validation” of skills to make sure applicants have the skills required for the activity they want to pursue.

Other policies

49. A number of training courses are provided to beneficiaries of subsidized employment and entrepreneurship schemes. The courses provided to beneficiaries of the DAIP aim to refresh and reinforce the skills acquired during formal education or previous training, with the goal of making the youth more employable. Such training is provided by public or private providers. The ANEM also subsidizes up to 60 percent of the cost of training through employment for up to six months, in the case where the employer commits to hiring the youth for at least one year. The CNAC also provides training courses to registered unemployed.

50. Qualitative evidence suggests that the quality of these training schemes may be deficient. Training schemes provided under the entrepreneurship schemes could benefit from important improvements.¹⁷ In particular, potential beneficiaries—owners and employees of micro- and small enterprises—are not always aware of the tools and training available. They would need to be coached to access the funds and schemes set up by the government; to plan their skills and training needs; and to share the skills acquired by previous beneficiaries. The quality of the training

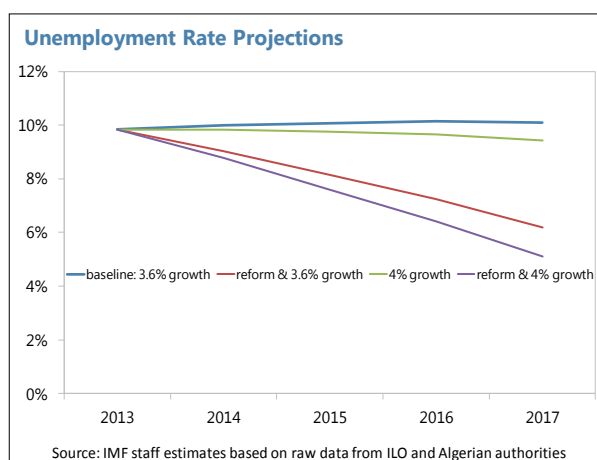
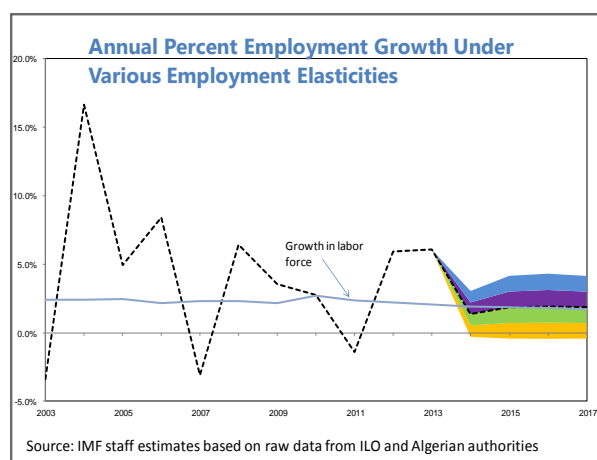
¹⁷ See Musette (2014).

that is provided is not always adapted, and is not evaluated (there is no quality assurance system in place). As in the case of formal education and training, there is insufficient cooperation between education and the private sector, in particular in the development of adapted curricula.

E. Employment Prospects

51. The employment creation rate barely covers the projected increase in the labor force.

Given current growth projections and estimated elasticity of employment to growth,¹⁸ the projections of formal employment growth in the next four years suggest that employment creation would barely keep up with the projected growth in the labor force. Moreover, such estimates are based on a period where a large number of temporary jobs were created through entrepreneurship schemes and wage subsidies. Such policies may be unsustainable, and many of the created jobs may disappear once they reach their term, which suggests that either significantly higher growth or structural reforms that improve the elasticity of employment to growth are needed.



52. Unemployment rates are therefore projected to remain relatively stable, bar any significant change in policy. Unemployment rates can only be reduced significantly by introducing reforms and policies that will foster growth in labor-intensive sectors, or provide incentives for productive businesses to expand employment further for a given growth. To reduce unemployment to a rate of 6 percent by 2017, the model predicts that a real GDP growth rate of 6 percent per year would be necessary over the period 2013–17. Under these predictions, only a major change in policy can significantly reduce unemployment. It should be noted that in recent years (since 2006) nonhydrocarbon GDP growth has been the main driver of total growth and that employment in the

¹⁸ The elasticity of employment to growth has been estimated using 24 years of data on real GDP and employment. The retained specification is a regression of employment on growth and a year dummy to account for the underlying increase in the labor force and other time-related unobservable variables. The colored areas correspond to different elasticities. Each area corresponds to a change in the elasticity of employment by 0.3.

hydrocarbon sector is modest (representing less than 2 percent of total employment in 2013). The elasticity of employment to nonhydrocarbon growth is therefore even smaller than the elasticity of employment to total growth, and the policy reforms are even more important.¹⁹ The unemployment rate has been stabilized in recent years through modest growth of the labor force, and slightly higher employment growth, sustained by fixed-term employment. Over the period 2004–13, the average annual growth rate of self-employment was 2.3 percent, against 2.9 percent for wage employment and 7.2 percent for fixed-term employment, while the labor force grew at an average annual growth rate of 2.4 percent.

53. Important structural reforms are needed to improve the elasticity of employment to growth. International experience shows that structural policies that increase labor flexibility, in the sense that they facilitate the reallocation of resources to more productive uses, improve the elasticity of employment to growth. In the same way, increasing competition in the product market, by lowering the cost of entry, may reduce incumbents' market power and rents, thereby reducing the gap between productivity and wages. Reducing the differential in pay between certain sectors of activity, or between the public and private sector, can reduce behaviors such as "wait unemployment" and prolonged job search, helping firms to recruit more easily. Reducing the public sector's intervention in the economy would also leave room for private sector investment. Estimates based on data from a sample of countries suggest that such policies can change elasticities by as much as 0.3, which is the scenario illustrated above (Crivelli and others 2012).

F. Policy Recommendations

54. A comprehensive approach to fostering job creation will need to be implemented. This is an underlying principle for a strategy of job creation that has long-ranging ramifications in the way policies are designed. In particular, it suggests that different ministries that do not necessarily interact start working together and with other stakeholders. Policies of various sectors can thereby be coordinated and complemented with the ultimate goal of greater private sector job creation. The national employment policy launched in 2008 by the Algerian authorities incorporates the principles of such a strategy; however, the implementation of the policy has not been systematic and efficient, and has so far not translated into significant improvements in private sector job creation or productivity.

55. Fostering job creation starts with addressing the lack of labor demand in the private sector. In particular, a number of policies that are beyond the realm of labor markets play a major role in spurring job creation. These include addressing business climate constraints, diversifying the economy, and containing public sector employment (see accompanying selected issues papers).

¹⁹ See Furceri (2012) for estimates of elasticities under various assumptions.

56. Stepping up reform of the education system to form future generations that are adaptable to private sector future needs. The government has already started a reform of the education system, but further efforts are needed in several areas:

- The effectiveness of spending on education needs to be improved. The available evidence shows that increases in staffing and other resources have not translated into tangible improvements in the quality of education. A cost-benefit analysis of current spending could be carried out, for example, through a public expenditure review.
- Revisions to the curriculum have not always been made with the ultimate goal of improving the labor market skills of future graduates. There should be a greater focus on the quality of education, as well as a review of the skills and competencies provided. A broader strategy of education for employment should be adopted. In particular, essential skills such as hard science, and foreign languages, as well as soft skills such as communication and problem-solving skills should be part of the curriculum. Students should be made aware of the realities of the private sector at a much earlier stage in their studies and private sector speakers should be invited and included in courses. The private sector should be part of the design of the curricula and supply, especially in the case of vocational courses, and even provide hands on experience to students. Such programs already exist in Algeria, but they should be made more systematically available to all students.
- Finally, the performance of the Algerian education system could be better assessed by more systematically participating in internationally recognized assessments such as PISA or TIMSS. The available test scores are outdated by now and it would be valuable to participate in such surveys, in order to assess improvements in the competitiveness of the country. Improving rankings would then attract foreign investors who seek a skilled labor force.

57. Labor market regulations should be better adapted to facilitate the reallocation of labor to productive uses.

- Labor regulations are necessary to restore balance between the power of employers and limited leverage of workers; however, unduly stringent regulations that overprotect workers may have unintended consequences. This seems to be the case in Algeria, where a combination of labor regulations, job intermediation rules, high payroll taxes, and inconsistent enforcement impose great costs on employers and partly explain their reluctance to hire permanent workers.
- International evidence suggests that liberalizing fixed-term contracts alone would lead to large increases in precarious employment;²⁰ a review of regulations on all types of contracts is

²⁰ For example, Spain in the mid-1980s saw a dramatic increase in the share of temporary employment to 33 percent when it liberalized fixed-term contracts while keeping regulations the same on other contracts. Empirical evidence from Spain suggests that workers with temporary contracts are not only less likely to be employed in firms that provide training, but are also less likely to be chosen for firm-provided training (Albert and others, 2005).

therefore necessary. In particular, employers should be allowed to hire new workers, especially inexperienced ones, under less stringent conditions than others until they reach a higher level of productivity and have the full set of skills required to do their job. Moreover, firing regulations should be reviewed so that they do not absolutely prevent employers from firing redundant or underperforming workers. Facilitating the reallocation of labor is necessary to the working of the labor market, and fosters further employment creation. In addition, regulations of working hours should be reviewed in order to allow more flexibility, enhance labor force participation of women, and help employers face seasonal variations in production. Finally, payroll taxation should be rationalized.

- The cost and negative impact of stringent labor regulations can be higher in the context of uneven enforcement. Labor regulations should be set at a level that is fully enforceable by the existing administration and removes room for discretionary enforcement, which increases uncertainty for firms. There is international evidence that improving enforcement of regulations can lead to formalization and expansion of business, because firms can better plan their development and have increased trust in the public service. There is also evidence that enforcement works better when it is implemented in a consensual and informative way rather than in a punitive way. The foremost role of labor inspectors should be to inform firms and workers of their duties and rights.

58. Facilitating labor mobility also requires protecting workers better against the risk of unemployment.

- Individuals are ill-equipped to insure themselves against the risk of job loss: although they can plan for it by building up savings, this strategy is inefficient for dealing with shocks that have low probability but high costs. Moreover, moral hazard and adverse selection problems prevent private provision of unemployment insurance. The risk of unemployment is therefore better insured through public provision, where public mandating or public provision and financing are required.
- The current unemployment benefit scheme does not do its job. It has extremely low coverage, and does not apply international best practices. In particular, the rules governing eligibility are particularly constraining, placing great responsibility and costs on employers, who therefore have little incentive to register unemployed workers.
- If unemployment insurance is to be used fully, it will need to be reformed. In particular, the payment made upfront by the employer could be transformed into prepaid payments made to individual savings accounts, which could be transferable to new jobs and be used as unemployment benefits, if needed, or kept for retirement. Such costs could be shifted to workers in the form of lower wages (Kugler, 2005).
- The implementing agency, CNAC, will need to refocus on its main business of providing unemployment benefits. In doing so, it will need to work closely with the ANEM to link unemployment benefits with job search requirements and help and participation in active labor

market policies, as relevant. The entrepreneurship scheme that it is currently financing can be merged into the ANSEJ because it has basically the same structure.

59. Active labor market policies need to be targeted to the most vulnerable groups, e.g. unskilled women and youth.

- *Wage subsidies* in Algeria offset the bias against first-time job seekers in labor regulations by providing important financial incentives to employers to hire them. Such policies can be successful in the short term but they are not sustainable in the long term. In particular, it is crucial that workers hired under such subsidies improve their skills and, thereby, their productivity so that they can eventually be hired in permanent jobs. As with other benefits, it is important to plan and encourage the “graduation” of beneficiaries and their eventual exit from such programs.
- The international evidence regarding the success of *entrepreneurship schemes* is mixed.²¹ Moreover, it is questionable to expect a large share of the young labor force to become entrepreneurs since wage work remains an employment of choice. In the case of Algeria, the sustainability of the jobs created under those schemes is unclear.
- To improve ALMPs and their impact, it is necessary to carry out *proper monitoring and some evaluation of the schemes*. Monitoring and evaluation can help fine tune policies. Quantitative and qualitative monitoring enables the rapid identification of issues in the implementation of the policies. Impact evaluations are more complex, but they enable a true cost-benefit analysis of the programs. They are particularly effective when embedded in the initial design of new programs (Khandker and others, 2010).
- International best practice suggests that *ALMPs should be targeted to specific groups*. Although such policies can be quite costly and do not necessarily benefit all, they bring the best results when targeted at vulnerable groups whose needs have been clearly identified. For example, there is evidence in Latin America that training programs for vulnerable youth can help them secure employment. In specific circumstances, public works programs can be used as active labor market policies. In particular, there is evidence that when they are carefully targeted, and combined with strong coaching and training components, they can be effective in improving the employability of vulnerable groups. For example, addressing the particular needs of youth is crucial to ensuring the quality of future labor supply.

²¹ In Tunisia, for example, the government has been supporting young entrepreneurs through the “Programme d’Accompagnement des Promoteurs des Petites Entreprises” (PAPE) since 2002. However, only about 50 percent of young entrepreneurs have repaid their loans, mainly because of the lack of clients (MDGF, 2009).

60. Economic and social policies should be designed to provide a level playing field for groups that face specific hurdles in the labor market.

- Beyond ALMPs, other economic and social policies can help include vulnerable groups participate fully in the labor market. For example, women are at a particular disadvantage, being essentially excluded from productive work. The informal work of women in sectors such as agriculture, textiles, or domestic services remains largely unmeasured by current survey methodologies. Social policies can be designed specifically to give the opportunity to women who choose to participate in the labor market to contribute to the economy at their full potential. In particular, issues such as the availability of child or elderly care, safe travel to work and greater flexibility in working arrangements and hours are of particular importance for women.

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