Resource Management and Financial Stability in Algeria

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After two decades of investment efforts financed primarily through external debt and domestic bank loans, Algerian economic development has remained dependent on hydrocarbon resources. As a result of "managed" resource allocation and petroleum price volatility, the economy registered persistent financial instability through the first half of the 1990s, despite the stabilization and adjustment programs and correlative exceptional financing arrangements. The Algerian economy remained highly vulnerable to external shocks until the beginning of the 2000s—a period characterized by restored macroeconomic equilibrium.

Prudent macrofinancial policy making and steering during the 2000s, based on more effective management and allocation of the resources generated by the hydrocarbons sector, have paved the way for macrofinancial stability. The substantial public investment efforts during the past decade, supported by a new financing scheme registering surplus saving over investment, have been accompanied with financial stability and resilience against external shocks. The stability of Algeria's banking system was decidedly confirmed during 2008-2009, followed in 2010 by a strengthening of the legal framework for financial stability.

In section 1, this paper shall discuss the lengthy process of financial instability that led during the late 1980s and early 1990s to serious domestic and external financial disequilibria. After a brief analysis of the period of drastic economic and financial recovery, the paper shall focus on the framework for financial stability gradually and resolutely developed during the 2000s. The approach of this paper is based primarily on management and allocation of the financial resources generated by the hydrocarbon sector.

1. External shocks and financial instability

Natural resources (substantially hydrocarbons), have played and continue to play a vital role in the Algerian economy, as the revenue generated by the exploitation of these resources constitutes the bulk of the country's export revenue and a substantial share of its budget revenue. Accordingly, the mechanism for management and allocation of such resources is a decisive factor in Algerian economic trends and development.

During the 1970s, most export revenue from hydrocarbons was used to cover the substantial import component of massive public investment and end consumption, in a context of substantial monetary and budget expansion, managed domestic prices, and insufficient stringency in the choices and management of public investment projects. Careless resource allocation and management, which was substantial until the mid-1980s, promoted the emergence of latent domestic imbalances and increased economic dependence on hydrocarbon sector exports.

Heavily dependent on hydrocarbon resources, the Algerian economy registered a lengthy period of financial instability following the external shock of 1986, which accentuated the investment–saving imbalance.

The decline in hydrocarbon exports (-39 percent) in 1986 following the 46 percent drop in petroleum prices, in a situation of high import propensity, began that year to generate an external current account balance of payments deficit, severely eroding the country's foreign exchange reserves (US$0.72 billion at end-1990, as compared with US$2.5 billion at end-1985), despite increased recourse to domestic debt. In this context, outstanding external debt reached the excessive level of US$ 26.1 billion at end-1989, as against approximately US$17 billion at end-1985, with a substantial share of short-term maturities. As a result, the external debt service/export ratio shot up to 80 percent in 1988 as compared with 35 percent in 1985.

This drastic deterioration in external debt indicators continued until end-1993 despite exceptional external financing contributions in the form of balance-of-payments support from the International Monetary Fund (1991 Stand-by arrangement) and World Bank (public enterprise and financial sector restructuring program) and the program to restructure some of the country's external debt.

During first quarter-1994, Algeria's vulnerable external financial position peaked with an external debt service ratio rising to 100 percent while hydrocarbon prices underwent another downward shock, with foreign exchange reserves representing only 1.3 months of imports.

With the backing of stabilization and structural adjustment programs (IMF and World Bank) staggered over four consecutive years (1994–1998), external debt rescheduling, which had become inevitable, made it possible to reduce external financing constraints substantially. However, outstanding medium- and long-term external date increased to US$33.2 billion at end-1996 (71 percent of GDP) as compared with US$26.1 billion at end-1989 **(**47 percent of GDP**),** as a result of external debt service payment deferrals.

Algeria's substantial external financial instability resulting from the 1986 shock led to accentuated fiscal imbalances. Petroleum tax revenue dropped by nearly 50 percent in 1986, although the rate of expenditure remained constant. As a result, the overall budget deficit reached record levels in 1986 (13 percent) and 1988 (13.7 percent), as a share of GDP, financed substantially through monetary creation. Expansionary monetary policy was also fed by substantially automatic central bank refinancing of medium-term bank loans used to finance investments planned during the 1970s and 1980s in a situation of structurally-insufficient domestic saving. Until the beginning of the monetary reform of the 1990s, financial stability was undermined by highly accommodating monetary policy and the passive role played by the central bank.

The macroeconomic policy shortcomings were so persistent that, despite the 1991 adjustment program (stand-by arrangement), the overall budget deficit widened once again to nearly 8.5 percent of gross domestic product in 1993, while fiscal vulnerability to hydrocarbon price volatility was substantial. Moreover, domestic financial instability was buoyed with sustained increases in non-performing public enterprise bank loans, while investment–saving imbalances persisted. Accordingly, the vulnerabilities accumulated, particularly in the public enterprise and banking sectors, which, at the same time, also faced the repercussions of the 1991 exchange rate adjustment.

In addition, the first year of the adjustment programs (1994-1998) was characterized by a substantial devaluation of the dinar in April 1994 followed by successive exchange rate adjustments reflecting trends in the economic fundamentals. At the same time, a substantial price liberalization was applied. As a result, previously repressed inflation surged to 29 percent and 30 percent in 1994 and 1995, respectively.

Fiscal rehabilitation in 1994-1995 led to an overall budget surplus in 1996 and 1997, supported by the exchange rate adjustment and contraction in the ratio of capital expenditure to GDP (7.3 percent in 1997 as against 10.1 percent in 1989). Simultaneously, financial rehabilitation of public enterprises continued, in which non-performing bank loans were bought back, primarily in connection with the bank-enterprise mechanism. In fact, as a result of the public enterprise restructuring and public bank rehabilitation program in the early 1990s, the scope of efforts to restructure the non-performing claims of these banks broadened during the latter half of the decade, supported in particular by monetization of the rescheduling resources. This approach helped reduce liquidity problems for some of these public banks.

Despite these substantial adjustment efforts, the Algerian economy's vulnerability to external shocks remained substantial. In fact, the impact of the 1998 drop in hydrocarbon prices led to an overall balance of payments deficit of US$1.7 billion and US$2.4 billion in 1998 and 1999, respectively, once again eroding the country's foreign exchange reserves, which declined from US$8 billion at end-1997 to US$4.4 billion at end-1999.

Correlatively, 1998 was marked by the return of fiscal disequilibrium, with a deficit of 3.8 percent of GDP after an overall budget surplus in 1996 and 1997, despite a sustained capital expenditure-to-GDP ratio of 7.5 percent. Rigorous measures to balance the public accounts (such as not using part of the capital budget) and the necessary exchange rate adjustment led to a balanced budget in 1999.

2. Adoption of prudent macroeconomic management for increased resources

Macroeconomic equilibrium was restored in 2000, followed by the emergence of surplus saving over investment as a characteristic of the Algerian economy during the period 2001-2008, supported with a substantial improvement in the terms of trade as a result of the increase in hydrocarbon prices on the international markets.

The surplus saving over investment in fact increased in respect of GDP, peaking at 24.7 percent in 2006, as against 16.3 percent in 2000. In terms of absolute value, this surplus savings peaked at US$34.45 billion in 2008, in the midst of the international financial crisis. Although the 2009 drop in hydrocarbon prices led to a sharp contraction in hydrocarbon export revenue and the first budget deficit in a decade, the country's sound financial position as a result of prudent macroeconomic management of the increased hydrocarbon revenue helped consolidate the Algerian economy's resilience against external shocks.

In 2000, the government instituted a new rule on budget savings by establishing the revenue regulation fund (*Fonds de régulation des recettes*—FRR), a stabilization fund in dinars and liquid assets designed to absorb any increase in petroleum tax revenue above a benchmark price of US$19 per barrel. The same year, the overall budget surplus amounted to 9.7 percent of GDP, consolidating a sustained accumulation of financial savings for the government in order to preserve medium-term fiscal sustainability. Resources accumulated in the FRR increased sharply during the period 2001-2008, with crude oil prices exceeding the benchmark price despite its adjustment to US$37 per barrel in 2008.

This prudent budget stance provided essential support for the economic recovery that began in 2001 through the implementation of a series of substantial public investment programs (2001-2004, 2005-2009, and 2010-2014), with a considerable infrastructure component. Despite the relatively significant level of resources absorbed in the implementation of these programs, funds accumulated in the FRR increased from 5.6 percent of GDP in 2000 to 24.4 percent in 2005 and to 43.1 percent in 2009. This stock of financial savings is deposited with the Bank of Algeria in a separate dinar account from the treasury current account, and is subject to special monitoring. This sterilization mechanism supports monetary and financial stability, particularly as domestic public debt represented only 8.1 percent of GDP in 2009.

From the standpoint of the necessary synergies between fiscal and monetary policies, the Bank of Algeria reviewed the framework for the latter beginning in April 2002 to absorb the surplus liquidity that appeared on the money market during the early months of that year, constituting a departure from the lengthy period of bank refinancing requirements. It has ensured since 2002 that excess liquidity is effectively mopped up through a flexible, orderly conduit of indirect monetary policy instruments such as liquidity absorption mechanisms (market instruments), the marginal deposit facility, and the reserve requirement (non-market instruments). This regulatory monetary policy framework was strengthened in 2009 to consolidate monetary policy's contribution to financial stability.

Moreover, this financial stability, and therefore the economy's resilience to external shocks, were also strengthened with the allocation of some of the accumulated budget savings to the substantial reduction in external public debt and through external debt relief for enterprises having financing capacities, primarily in the hydrocarbon sectors.

All things considered, the conduct of prudent macrofinancial policies based on more effective management and allocation of the resources generated by the hydrocarbon sector during the 2000s broadly contributed to Algeria's robust economic and financial performance, judging in particular from the following indicators:

- Sustained non-hydrocarbon growth reaching the level of 9.3 percent in 2009, after levels in the range of 5-6.3 percent during the entire period 2002-2008, indicative of the substantial contribution from public investment programs to this growth;
- Controlled inflation, even in 2008, a year of sharp increases in world food and inputs prices;
- Consecutive balance of payments surpluses leading to a sustained accumulation of foreign exchange reserves (36 months of goods and services imports), despite the substantial reduction in medium- and long-term external debt, for which the outstanding balance as a share of GDP amounted to only 2.8 percent in 2009, as against 25.1 percent of GDP in 2004 and 57.9 percent in 1999;
- A sustained accumulation of resources in the FRR (43.1 percent of GDP in 2009).

3. Financing for the economy in a context of prudent resource management

The sustained increase in domestic saving since 2000, particularly in its budget saving and hydrocarbon sector saving components, was the cornerstone of the mechanism to finance the economy during the past decade.

3.1. Investment financing and saving

During the past 10 years, most investment were made through two main economic players having substantial financing capacities: the government and the hydrocarbon sector, whose financing capacity is determined by the revenue generated in the hydrocarbon sector.

Beginning in 2001, the government undertook the first public investment program (2001-2004) followed by a second program (2005-2009). Progress in this area provided great stimulus for gross fixed capital formation, and the share of such investments in gross investment reached 47.9 percent in 2009, as against 40.8 percent in 2004. For the last five years (2005-2009), public investment (economic and social infrastructures, housing, agriculture, water works, etc.) came to a total of US$96.77 billion out of US$188.13 billion in total gross investment, equivalent to a relative share of 51.3 percent. The level of public investment reached 18.2 percent of GDP in 2009, as against 7.5 percent in 1998, corresponding to two years of external shocks. Budget saving accumulated during this period enabled the government to self-finance all of its investments, despite the extent of the 2009 external shock, which led to a 42 percent contraction in oil tax revenue.

The national hydrocarbon enterprise has contributed substantially to gross fixed capital formation through the implementation of ambitious annual investment plans during recent years. In fact, investments by this enterprise increased from US$3.7 billion in 2004 to US$14.9 billion in 2009. For the past five years, the ratio of investments by the national hydrocarbon enterprise to total gross investment averaged 21 percent, of which 28.3 percent is attributed to 2009. Between 2001 and 2004, the national hydrocarbon enterprise covered its investment financing largely with its own financial resources. Since 2005, the enterprise has self-financed all of its investments while generating an appreciable stock of savings.

3.2. Cycle of credit to the economy and financial stability

Self-financing by the government and by the national hydrocarbon enterprise of their investments during recent years has led to a total absence of the crowding-out effect of the rest of the economy in terms of domestic financing, essentially from the banking system. Further, surplus resources from the national hydrocarbon enterprise have constituted a substantial volume of funds that can be used for lending in the banking system, while surplus budget resources have been sterilized in support of macrofinancial stability.

During the period 2005-2009, the availability of substantial resources in the banking system made it possible to finance 49.1 percent of investments in the rest of the economy, with the balance of the financing covered by own resources (46.8 percent) and through bond market issues (4.1 percent). The relative share of cumulative investments in the economy to total gross investment was 27.8 percent for the period 2005-2009, with substantial rates of increase in investments (19.4 percent in 2008 and 11.5 percent in 2009).

In general, the investment finance structure for the past five years shows a very high level of self- financing (85.2 percent), and the balance is financed substantially with domestic bank loans, constituting a clear departure from earlier financing patterns.

The 2000s are characterized by substantial development in bank intermediation from the standpoint of collecting resources and distribution of credit, and by the modernization of payment systems that has led to an appreciable improvement in basic banking services for clients. Credit to the economy in fact registered an average annual growth rate of 8.4 percent during the period 2000-2009, including 21.2 percent loans to the private sector, with a deposit coverage rate of 135.3 percent deriving largely from hydrocarbon resources.

We should bear in mind that the lack of prudence in allocation and management of financial resources during the 1970s and 1980s led to a high level of outstanding debt distributed by public banks, relative to non-hydrocarbon GDP, equivalent to 80 percent for the period 1985-1990, while recourse by hydrocarbon sector enterprises to domestic credit was quite low. The high level of this ratio can be attributed to the lengthy period of monetary expansionism following the phenomenon of "financial repression" that characterized bank intermediation during these two decades. The ratio declined steadily to 47.6 percent in 2009, primarily as a result of operations to reschedule nonperforming bank claims on public enterprises, at a cost of 2.6 percent of GDP for the 1990s and 0.9 percent of GDP during the 2000s.

Trends in credit to the economy during the 2000s are characterized by a substantial increase in credit to the private sector. The distribution of credits to this sector was particularly dynamic during 2000-2005, reflecting a situation of relative relaxation in lending criteria, leading to the emergence of nonperforming claims by public banks against this sector, and a substantial risk concentration. Accordingly, during the period 2002-2005, credit flows to the private sector (private enterprises and households) increased from 6.4 percent of cumulative value added in the sector to 4.8 percent for the period 2006-2009. Beginning in 2006, the cycle of credit to private enterprises and households shows that reduced bank credit flows were accompanied with greater wealth creation in the private sector. It is useful to note that the nonperforming claims on the private sector do not involve home mortgage loans, as there was no acceleration in the cycle for this type of loan. Home mortgage loans represented only 8.3 percent of the relevant deposits at end-2009.

From the standpoint of monetary stability, during the period 2000-2008, the increase in credit to the economy constituted only a modest source of monetary expansion, the main source being aggregate net foreign assets. With the exception of 2009, the structural expansion in net foreign assets in connection with hydrocarbon export revenue in fact constituted a challenge in monetary policy steering. The ratio of net foreign assets to M2 reached an unprecedented 1.473 at end-2008, stabilizing in 2009, as against 1.027 at end-2005. Very low levels of monetary growth (3.1 percent) were in fact registered in 2009, and a contraction (-14 percent) was registered in liquidity, correlating with the external shock, following substantial rates of monetary expansion registered in this area during the period 2005-2008. Accordingly, the monetary growth rate peaked at 24.2 percent in 2007, followed by a reversal in the cycle (16 percent en 2008 and 3.1 percent in 2009).

Moreover, consistently with recent developments in the operational framework for monetary policy at the international level, following the financial crisis, the strengthening of the monetary policy framework in 2009 with a new regulation of the Money and Credit Council gave the Bank of Algeria monetary instruments meeting international standards, enabling it to continue to cover the structural liquidity surpluses that had prevailed since 2002 and to contain inflationary pressures. This regulatory framework covers bank refinancing operations, operations to mop up excess liquidity on the money market, and facilities (loans and deposits) at the banks' initiatives. This approach reinforces the contribution of monetary policy to financial stability, with the stabilization of the real effective exchange rate for the dinar around its equilibrium level.

The progress made in the area of monetary stability and the resilience of the banking sector have enabled further consolidation of financial stability, sustained by the 2008-2009 improvement of the operational framework for banking activity (minimum regulatory capital increase, new accounting regulations meeting international standards applicable from 2010, assessment of risks in connection with new financial instruments, etc.).

Specifically, the substantial increase in bank capital (DA 76 billion) during the latter half of 2009, in conformity with the increase in the minimum capital level, and the upgrading of capital in certain public banks (DA 42 billion) helped consolidate the overall solvency ratio, which reached 21.78 percent in 2009, as against 16.54 percent in 2008 and 12.85 percent in 2007. In terms of core capital and capital, the solvency ratios were 17 percent and 9.7 percent, respectively, in 2009.

The other indicators show increased soundness in the banking system during the latter half of the 2000s. Despite a relative contraction in 2009 as a result of the external shock, the liquidity surplus persisted, as shown by the high level of both liquid asset indicators to total assets and liquid assets to short-term liabilities. Further, returns on capital and reserves were still substantial, amounting to 24.8 percent en 2009. The rate of return on banks' assets was situated at 1.4 percent for 2009. This rate is similar to those registered in certain emerging countries such as Turkey, Indonesia, Malaysia, Brazil, Chile, South Korea, and South Africa.

While these indicators show the stability and resilience of Algeria's banking sector in light of external shocks, the level of nonperforming claims, primarily against the private sector, is still a challenge for public banks, which must continue to improve their credit risk management mechanisms.

In this context, the strengthened financial stability based on progress in the area of monetary stability primarily entails a sustained improvement in the surveillance of banks and financial institutions. To that end, microprudential supervision instruments will be strengthened, particularly through the establishment of a new liquidity ratio, and through intensified off-site and on-site supervision.

4. Strengthening the framework for financial stability: outlook for the macroprudential approach

The new legislative provisions (Order 10-04 of August 26, 2010) consolidate the legal framework governing the banking sector in Algeria and strengthen the legal basis for financial stability as an explicit mission of the Bank of Algeria, primarily from the standpoint of systemic risk surveillance. This approach supports the regulatory measures applied in recent years to address certain vulnerabilities that had been observed.

The Bank of Algeria now has broader prerogatives to launch any investigation of banks and financial institutions. This permits more effective follow-up of banks and financial institutions and enhances the Bank of Algeria's capacity for early detection of vulnerabilities. Intensified microprudential supervision will contribute to the orderly development of the banking system, particularly as systemic risk surveillance is derived primarily from Bank of Algeria's payment system surveillance. The central bank now has broader powers in this area, including the operations, surveillance, and security of payments systems.

The finalization and implementation of the bank rating system during the first half of 2011, along with the effective operation of the new risk reporting center at the end of that year, will give risk-based supervision an operational focus.

In addition, the powers of the monetary authority (the Money and Credit Council) have been expanded to new areas—specifically new saving and credit instruments, production of standards, operation and security of payments systems, and rules of conduct and ethics. Further, Bank of Algeria will submit liquidity risk management regulations to the Money and Credit Council by end-2010, in accordance with the new rules of the Basel Committee.

In the short term, the Bank of Algeria's Financial Stability Committee will complete a review of financial soundness indicators for the 11 minimum indicators. This review will subsequently be expanded to further proposed indicators. The Committee will conduct further analyses of the macroprudential approach to reflect the structural liquidity surpluses now characterizing the Algerian banking system, and the need to improve allocation of credit to the economy to support national economic diversification.

In terms of crisis prevention and resolution, the intensification of information exchanges among the various authorities in the financial sector, aiming to refine and strengthen the knowledge of the financial system's level of resistance to cyclical phenomena, will make it possible to detect any threats against financial stability. For that purpose, the use of stress tests, in particular, for periodic assessment of the stability of the banking and financial system will receive special attention.

Last, the new legislative measures of August 2010 provide legal underpinnings for price stability as an explicit monetary policy objective. This approach will support the 2009 consolidation of the regulatory framework and instruments for monetary policy, now providing a forward-looking orientation. The contribution of monetary policy to financial stability is therefore reinforced. In addition, prudent management of official exchange reserves at a sufficient level to cover any external shocks that may occur is part of the strategic objectives to consolidate financial stability. Economic diversification efforts must still be intensified to achieve a sharp reduction in the vulnerability inherent in the economy's dependence on the hydrocarbon sector.