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CONTENTS

REVAMPING THE FISCAL POLICY FRAMEWORK IN AZERBAIJAN [1]

Azerbaijan faces the benefits and challenges posed by a temporary oil boom. [2] *Oil profits to the government increased by about 30 percent of GDP in mid-2000s and, while declining, are likely to remain high over the next decade. The oil boom presents a unique opportunity to speed up the development agenda, if properly managed, but at the same time poses challenges to the management of macroeconomic policy. A new fiscal framework anchored on fiscal rules and strong institutional arrangements could boost the credibility in the Azerbaijani government's ability to sustain macro stability and achieve fiscal sustainability while dealing with the challenges posed by the volatility and exhaustability of oil resources to fiscal policy decisions. Section I of this note provides a rationale for a new fiscal policy framework in Azerbaijan. Section II discusses a toolkit to strengthen the fiscal framework in light of international experience and recent IMF guidance tailored to resource-rich developing countries. Section III presents a simulation of alternative fiscal rules before concluding with a proposal to revamp the fiscal policy framework in Azerbaijan.*

A. The Case for a Stronger Fiscal Policy Framework in Azerbaijan

1. Fiscal policy makers in Azerbaijan—a resource driven-economy with a relatively limited endowment—face three main challenges ahead:[3] First, enabling the *rapid transformation of oil revenue into productive assets* to foster long term broad-based growth and the sharing of oil wealth with future generations without undermining macro and fiscal sustainability. Second, entrenching sound government spending decisions to appropriately deal with *the volatility and exhaustability of oil revenue* and support macroeconomic objectives, and third, unwinding the fiscal stimulus initiated during the global 2008 crisis by *embarking on a fiscal consolidation* process to bring credibility on the government's ability to achieve intergenerational equity and a sustainable fiscal position once the oil resources are depleted. More predictability about the government's willingness to pursue fiscal consolidation and reduce its role in the economy could also better inform private sector decisions and open the space for a more dynamic private sector led non-oil economy, crucial to achieve the diversification and inclusive growth objectives.

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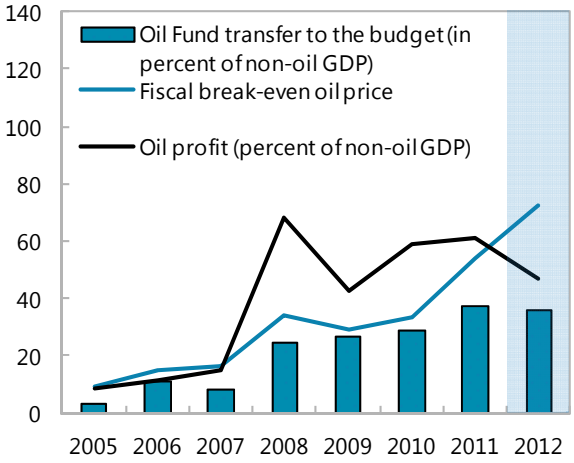
[1]. Prepared by M. Albino-War, with helpful comments from Fund staff from the Middle East and Central Asia Department (MCD) and the Fiscal Affairs Department (FAD).

[2] In this note, oil refers to both oil and gas resources. Oil revenue represents about 95 percent of total hydrocarbon revenue.

[3] Oil and gas account for about 92 percent of exports and 70 percent of fiscal revenues.

2. Dealing with such challenges could be a daunting task as Azerbaijan is at a critical juncture. *Oil production declined* in the last two years — after reaching its peak in 2010—and reserves could be depleted in 15–20 years. Despite anticipated increases in gas production, gas revenues are unlikely to help offset the oil revenue decline due to price differentials and rapid changes in gas markets. *Oil dependence and fiscal vulnerabilities* are rapidly *increasing* as reflected in the break-even oil price and oil fund transfers to the budget. *Pressures to relax the already unsustainable fiscal position* are considerable as evidenced by the high oil price ($100 per dollar) underpinning the approved 2013 budget and the government support provided early this year to tackle the weak financial situation of the systemic public bank.[4] *Fiscal risks* are also building up in absence of a comprehensive reform of the pension system and an as a result of the aggressive investment plan (both domestically and abroad) by the National Oil Company (SOCAR).

Azerbaijan: Indicators of Fiscal Vulnerabilty



Sources: Azebaijani authorities; and Fund staff estimates.

3. The fiscal framework in place served the country well, particularly ahead of the 2008 global crisis. Three good elements of the current framework can be identified: (i) an *ad-hoc rule to save about half of the oil revenue* abroad in a transparent and well-managed oil fund SOFAZ (Box 1). This strategy has supported a smooth absorption path of oil revenues, helping the country avoid the adverse consequences of harvesting natural resources while building up the necessary buffer to respond with a large and timely stimulus when needed, as during the 2008 global crisis; (ii) *a medium-term fiscal framework with a comprehensive coverage* of fiscal accounts. This framework underpinned by rolling three-year budget plans—while not binding—has helped provide a medium-term view to fiscal policy decisions through forecasts for key broad fiscal aggregates on the revenue and expenditure side;[5] and (iii) a preferred *use of oil-funds to finance investment* (with only about ¼ of the oil transfers directed to increases in public consumption) that has contributed to address

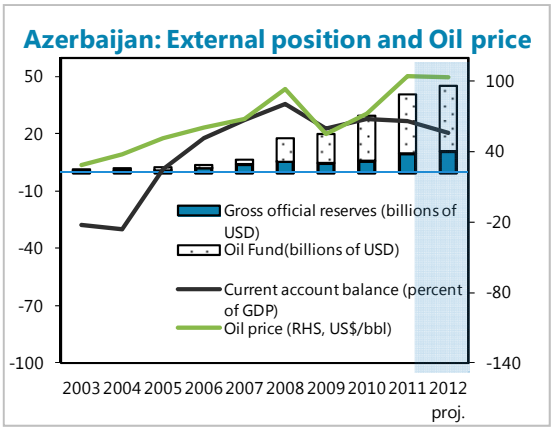
[4] The nonoil deficit in percent of non-oil GDP has increased by more than 10 percentage points of non-oil GDP to about 40 percent relative to the pre 2008 global crisis levels. The fiscal stimulus, while initially appropriated to mitigate the impact of the crisis, has placed the non-oil fiscal position well above the sustainable level of about 35 percent implied by the permanent income rule and could generate overheating pressures as non-oil output has now reached potential.

[5] The fiscal accounts presented to parliament during the budget process are based on a wide definition of central government operations as include the operations of the state budget along with those of the oil fund and the social protection fund, extrabudgetary funds, with key role in government revenue and spending.

some pressing infrastructure needs and contain permanent increases in current spending while mitigating pressures on inflation and the real effective exchange rate.

Box 1. Azerbaijan: SOFAZ- State Oil Fund of the Republic of Azerbaijan

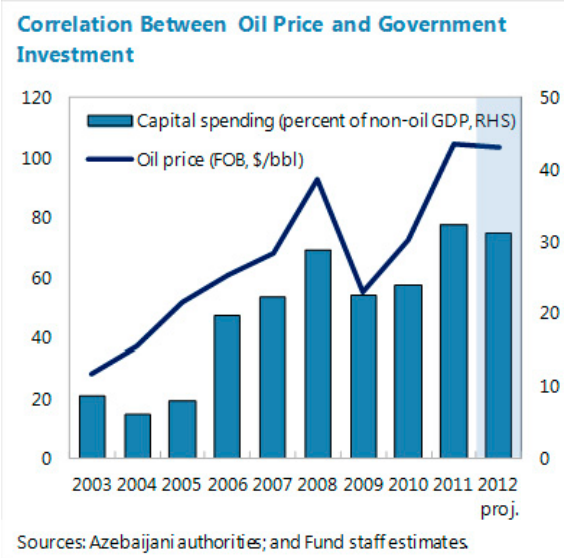
Since its creation in late 1990s, SOFAZ has played a key role in macro-stability, the accumulation of oil resources for future generations, and the development of key public infrastructure. Consistent with its objectives, SOFAZ has accumulated substantial resources abroad, smoothing the possible impact of adverse macro consequences on the exchange rate and inflation, and enabling the implementation of countercyclical fiscal policy to mitigate the impact of shocks such as the 2008 global crisis (see figure 1). SOFAZ has also channeled oil wealth towards key social-economic programs, including housing for internally displaced persons from the Nagorno-Karabakh conflict with Armenia and the BTC Main Export Pipeline transporting crude oil to the international markets.



Strong governance and transparency arrangements in SOFAZ have facilitated a reliable assessment of the fiscal position and allocation of public resources. Azerbaijan/SOFAZ was the first country disclosing EITI report (March, 2005). SOFAZ operations are fully consolidated with the State budget and annual transfers of resources to the State budget are approved as part of the budget process by the parliament. To reduce political interference and enhance accountability, SOFAZ finances mainly public investment projects implemented through the State Treasury and cannot lend to government bodies, public and non-public enterprises (organizations), nor serve as a collateral for debt or liabilities of any entity in the country. Regular audits of SOFAZ's operations are performed by reputable firms of international auditors, and quarterly/annual statements are published in the local press and on the Oil Fund's official web-site. http://www.oilfund.az/

The pace of oil-financed spending relative to oil revenue has, however, considerably increased recently and spending pressures are jeopardizing the savings objective. For the first time since its creation, SOFAZ is likely to drawdown resources to finance spending in 2013. SOFAZ may also get involved in the financing of the ambitious investment program of the state oil company, outside the normal budget process.

4. The framework in place, however, and is not strong enough to anchor sound future fiscal policy decisions and support policy makers in tackling key fiscal challenges. Three key drawbacks include: (i) a *strong link between spending and current oil prices* created in absence of price-based rules to regulate transfers between the oil fund and the budget. This link has brought pro-cyclicality to fiscal policy and exposed macroeconomic management to some volatility and uncertainty; (ii) the definition and announcement of a *fiscal target mainly for the overall balance of the state budget in percent of GDP*, which overlooks the non-oil fiscal position and the need to achieve long term fiscal sustainability and intergenerational equity;[6] and (iii) *Not enough emphasis on the impact of (investment) spending* on long term growth of both fiscal revenue and the non-oil export sector. This is evidenced by large investment projects with doubtful growth returns and low ranking of the country in the IMF/WB public investment management index (particularly on appraisal and selection of investment projects). Despite some progress, performance is still poor on worldwide indicators on control of corruption.



B. A toolkit for Strengthening Fiscal Frameworks

5. The toolkit presented in this section reflects the experience of several countries that have recently strengthened their fiscal policy frameworks to entrench fiscal prudence and promote macro stability and medium-term fiscal sustainability. Part of this wave reflects the difficulties faced by governments across the world to unwind large fiscal stimulus initiated during the 2008 global crisis. Key elements of the ongoing reform efforts in several countries are the adoption or revamping of *fiscal rules* supported by *innovative fiscal and independent institutions*. Such synergy of elements by constraining government decisions have helped fiscal authorities in several countries resist undue spending pressures that could pose risks to macro stability and fiscal sustainability. Nowadays, rules are used in 81 countries, including advanced and emerging market economies, and fiscal councils or independent fiscal agencies are operational in at least 20 countries (2012, IMF Fiscal Monitor).

6. The toolkit is also consistent with the recent IMF guidance for developing fiscal framework resource-rich developing countries (RRDC).[7] The new guidance highlights the role of

[6] A non-oil balance presidential guideline (2004) consistent with constant real consumption out of oil wealth was never observed.

[7] See IMF (2012a) and IMF (2012b).

resource wealth in the economic development strategy of RRDCs but stresses the need to adopt fiscal frameworks that foster macroeconomic stability and fiscal sustainability while enabling transparent and efficient management of resource wealth. In this context, a sound fiscal framework for RRDC should include *fiscal rules* to manage price volatility and fiscal sustainability, *new fiscal indicators* to enrich the fiscal policy debate, *supportive fiscal institutions*, and *natural resource funds*.

Fiscal rules

7. Like in other resource-rich countries, a fiscal rule in Azerbaijan can take the form of either non-resource primary balance rules or resource price-based rules. Both sets of rules could deal with the challenges posed by the use of resource endowments, in particular with (i) long-term fiscal sustainability by bringing into consideration the exhaustability of resource revenue, and (ii) the management of short- to medium-term demand by smoothing resource revenue and delinking expenditure from resource-price volatility.[8]

Non-oil primary balance rules

8. A rule on the non-oil primary balance could provide an explicit link between fiscal policy decisions and the soon to come exhaustibility of oil resources in Azerbaijan. Such a rule—consistent with the permanent income hypothesis (PIH)—would smooth consumption in the face of resource windfalls, supporting both objectives of macro-fiscal stability and intergenerational equity. Different PIH rules entail varying implications for the government's non-resource balance or spending path. On the most conservative side, a "*bird-in-hand*" rule, spending is based on the returns on the resource revenues already materialized (e.g., Norway). On the middle ground, the "*standard PIH rule*" based on the annuity/perpetuity value of expected future revenues (e.g., Russia pre-global 2008 crisis), up front spending is enabled to deal with pressing development needs and the relatively low accrued financial assets of developing countries. On the other extreme, recent IMF guidance for RRDC envisages a "*modified PIH rule*" (e.g., Timor-Leste) that allows a "scaling-up of capital expenditure with high growth returns", or a "*Fiscal Sustainability Framework*" that enables a surge in investment above the sustainable levels implied by the PIH, to support development or diversification objectives. These two last alternatives, however, require sharp future spending adjustments along with a sound public investment management system and a good absorption capacity in place.

9. Traditional drawbacks of the PIH-based rules could be overcome by taking into account resource volatility and the macroeconomic impact of fiscal spending over the short term. *A price-based rule embedded in a PIH* rule could smooth dramatic changes in the benchmark of spending due to changes in assumptions of the resource price. An *ad-hoc downward adjustment*

[8] This section draws on Baunsgaard (2012), Barnett (2002), and IMF (2012a).

on the spending derived under the PIH rule could take into account the spending impact on aggregate demand and inflation. *Adjustments could also be prompted by the cyclical position of the non-resource economy* in countries where fiscal policy is the main policy tool for short-term macroeconomic management, though this rule could be difficult to adopt when the economic cycle is not easily identifiable due to changes in the economic structure. *Communication efforts* to generate support and credibility in the rule—crucial given the difficulties in communicating a non-oil deficit target—could be overcome by focusing on the maximum gap allowed between the government spending derived under the PIH rule and the non-oil revenue (either in absolute terms or in percent of GDP).

Oil price-based and structural balance rules

10. An oil price-based rule in Azerbaijan could explicitly deal with the oil price volatility. Such rules place a cap on government spending on the basis of the *smoothed oil revenue and an explicit primary balance targets*, breaking the link between government spending and oil price volatility, while at the same time strengthening fiscal discipline. By letting the primary balance swings along with the oil price, these rules, in general, force the accumulation (or drawing down) of oil revenue in a stabilization buffer and prevent the use of supplementary budgets in response to higher oil prices. Oil price formulas could entail *moving averages of past prices* (e.g., as the recently enacted rule in Russia) or *a combination of past and futures* (markets) prices (e.g. Mexico, Mongolia, and Trinidad and Tobago). The latter approach seeks to reduce volatility relative to actual prices while forcing some adjustment in response to market shocks though at the cost of larger forecasting errors.

11. Oil price-based rules can be adjusted by the business or commodity cycle to deal with the macroeconomic impact of fiscal spending over the short term. Adjustments to the oil price-based rules could help delink public spending from revenue volatility due to the other factors. The oil-price rule could be combined in a structural balance rule for example, with an *adjustment to non-oil revenue for the economic cycle* (e.g. as Chile deals with the copper price) or an adjustment to oil revenue due to other *commodity factor cycle* (e.g. Mongolia management of large increase in mineral production). If the economic cycle is not easily identifiable due to changes in the economic structure, a *well-defined escape* clause could be enacted along with the oil-price based rule to allow for temporary and limited deviations from the rule in the face of a major negative economic crisis (e.g., Peru).

12. Main drawbacks in oil price-based and structural rules could be addressed by bringing long-term fiscal sustainability considerations with supplementary expenditure or debt rules. The *spending or debt rules* could bring a relatively short horizon for the exhaustibility of resources into policy decisions, serving as safeguards for fiscal sustainability. Spending rules could also reflect the economy's absorption capacity, promoting a good use of public spending. These rules, however, may need to be revisited to avoid pro-cyclicality of spending or as the country's absorption capacity develops. Expenditure rules could take different forms, including a ceiling to the spending to non-oil GDP ratio, the spending level, or the nominal/real growth of spending (e.g., Peru).

New fiscal indicators to enrich fiscal policy decisions

13. A close monitoring of the "Domestic" non-oil primary balance (excluding transactions with the rest of the world) could help identify changes in Azerbaijan's absorptive capacity for scaling up spending. A limited absorptive capacity is generally associated with a rapid deterioration of this indicator and could reveal excessive demand pressures for domestic goods arising from a rapid expansion of public investment with small import content. On the contrary, sustained declines in the domestic non-oil primary balance could point to improvements in the absorptive capacity and open up space for a scaling up of public investments. Assessing absorptive capacity with this indicator in practice would require data availability on the import content of government spending.

14. Trends in the break even oil price can also help the Azerbaijani authorities identify changes in the vulnerability of public finances to a sharp decline in oil prices. As discussed in the first section of the note, the recent sustained increase in the break-even oil price needed to balance the fiscal accounts at current production levels suggest a build up of fiscal vulnerabilities to declines in oil price. This measure, however, ignores how long production levels could be maintained, which is an important factor for assessing the long run sustainability. An alternative "sustainable fiscal breakeven", which replaces the actual oil production in a year with an annuity from oil wealth (Behar, 2012), could be very relevant for Azerbaijan as this approach put under question the assessment of a favorable breakeven status in the context of low reserve/production ratios.

Supportive fiscal institutions

15. In light of the international experience, supportive fiscal institutions in Azerbaijan could effectively supplement a rules-based framework and enable sound macroeconomic performance and long-term economic growth. A stringent public financial management system combined possibly with a fiscal responsibility law or independent fiscal agencies could enhance the credibility in the enforcement of the fiscal rule while strengthening the transparency and accountability of fiscal policy decisions.

16. A credible commitment to macro-fiscal stability and effective use of oil wealth should be supported by a public financial management (PFM) system in line with best international practices. The *PFM system* should ensure as part of the budget process (i) a transparent and comprehensive presentation of oil revenue and the underlying non-oil fiscal position; (ii) a sustainable long-term fiscal strategy based on prudent revenue projections, realistic medium term fiscal frameworks, and a good budget classification; and (iii) transparent mechanisms for investment project appraisal, selection, and prioritization of investment to ensure resource revenue is used to support long-term economic development.[9] The ongoing revision to the existing IMF Code of Good

[9] IMF (2012a).

Practices on *Fiscal Transparency (*2007) also advocates that published fiscal reports (i) cover a wider range of public sector institutions; (ii) capture a broader range of direct and contingent assets and liabilities; and (iii) take a more rigorous approach to fiscal forecasting and risk analysis. The World Bank's *EITI++ initiative*—building on the transparency and good governance concepts of the existing multi-stakeholder Extractive Industries Transparency Initiative (EITI)—is relevant for resource-rich countries as has widened the transparency requirements in the reporting of management of natural resource wealth from revenue to spending.

17. A fiscal responsibility law in Azerbaijan could establish a legal basis and an effective enforcement mechanism for a new rules-based fiscal policy. Fiscal responsibility laws (FRLs) are permanent institutional arrangements to promote fiscal discipline, increasingly gaining support in industrial countries, Latin America, Europe, and Asia. FRLs may include procedural and numerical rules, or both. The *procedural rules* aim to enhance transparency, accountability, and fiscal management by generally requiring the government to commit up front to a monitorable fiscal policy strategy, usually for a multiyear period, and to report and publish fiscal outcomes and strategy changes on a routine basis (e.g., Chile and Peru). *Numerical fiscal* rules in FRLs are also common and are intended to establish permanent constraint on fiscal policy, generally in terms of an indicator of fiscal performance. Mechanisms to encourage enforcement include sanctions for noncompliance both reputational (some European countries) or personal on public officials (e.g., Brazil).[10]

Box 2. Azerbaijan: The Fiscal Responsibility Law of Mongolia 1/

The fiscal stability law (FSL) approved in Mongolia in 2010 promotes fiscal discipline with fiscal rules, core PFM requirements, and a stabilization fund for mineral revenue. The main fiscal rule targets a "structural" balance. When actual mineral revenue exceeds structural mineral revenue, the difference has to be placed in the stabilization fund. The FSL promotes a minimum savings effort by the government and incorporates procedural and transparency reforms to strengthen budget discipline.

The FSL takes into consideration that fiscal rules have to strike a balance between economic strictness and political reality. The fact that amendments to the FSL require a two-thirds parliamentary majority signals that the authorities are fully committed to the rules-based approach. However, the FSL foresees recalibrating the main fiscal target (the structural balance), every four years at the beginning of a new government term. The law also has an escape clause in case of national emergencies or economic crises.

Source: Based on (K. Min, 2012)

18. Independent fiscal councils could be another option to enhance the credibility of a rules-based fiscal framework. Such entities seek to foster transparency and accountability of fiscal

[10] IMF (2007).

decisions while ensuring compliance with fiscal rules in place. Main functions include providing independent assessments of budget assumptions, plans and outcomes (e.g. Chile), identifying sources of fiscal risks (e.g., Romania and Serbia), and sometimes advising policymakers on policy options (e.g., Colombia). The institutional arrangements, though, highly depend on the political environment and the legal tradition. In several cases, the agencies benefit from formal communication channels with parliaments.

Oil fund management (SWF)[11]

19. Oil funds, such as SOFAZ in Azerbaijan, should be seen as complementary policy tools, not the main fiscal policy instrument. Oil funds generally help achieve two main objectives: (i) fiscal and *macroeconomic stabilization* to help smooth public spending and contribute to short-term macro stability; and (ii) building up of financial *savings* for future generations and fiscal sustainability in light of the exhaustibility of oil revenues. A third less common objective is the financing of pressing development needs (e.g., Kazakhstan and UEA). As the budget is the main fiscal policy instrument, spending decisions of oil resources should be made within the budget framework and be guided by macroeconomic considerations and sound mechanisms to set expenditure priorities and allocate public resources. Spending decision should not, therefore, be linked to flows or stocks in the oil fund.

20. SOFAZ like other oil funds could establish one portfolio per objective to increase the accountability in the achievement of different objectives. Different portfolios could help deal with multiple and sometimes conflicting objectives, protecting in particular the long term savings goals. Such a strategy could also provide a more explicit link with the relevant strategic asset allocation framework. The stabilization objective should be the key pillar of oil funds, though weight attached by policy makers to the different objectives varies across countries. The size of the *stabilization buffer* could be based on a few years coverage of a specific oil price shock or of the budget oil revenue (e.g., Russia's Reserve Fund), or on a more rigorous approach value-at-risk analysis using a stochastic simulation of projected oil prices and incorporating the production horizon[12]. The buffer size needs to be revisited, however, in light of changes in long-term oil price or production developments. Deposit and withdrawal rules in the other portfolios need to be consistent with the objectives of each fund.

21. The allocation of oil fund resources for developmental purposes should be guided by clear and transparent criteria. Domestic (infrastructure) spending, if efficient, could alleviate critical bottlenecks, improve productivity, and foster the development of the non-oil sector. However, this spending could put pressure on prices, the exchange rate, or interest rates (if sterilization takes

[11] This section draws on Horton (2010) and IMF (2012a).

[12] For a discussion of the value-at-risk analysis see IMF (2012a).

place) with adverse consequences for growth. Recognizing these tensions, the Santiago Principles call for oil fund (SWF) activities with significant direct domestic macroeconomic implications to be closely coordinated with the fiscal and monetary authorities to ensure consistency with overall policies. In this direction, the fund could provide secure or set-aside, multiyear funding for infrastructure projects in the budget within an envelope determined by the available fiscal space (including sufficiency of the buffer), spending absorption capacity, and long-term sustainability. Within the spending envelope, allocation could be in line with an "infrastructure needs assessments" developed jointly with developmental partners (e.g., WB or ADB).[13]

22. The benefits of allowing SOFAZ the use of market-based instruments to manage commodity price volatility are not conclusive. Countries can enter into over-the-counter forward contracts to lock in prices or hedge price risk with futures and options. However, it may be hard to explain to the civil society that the cost of a long option was justified when it was not exercised or why a revenue windfall is being offset by losses in futures contracts. On the supply side, some investors may be reluctant to enter into hedging deals with sovereigns when they fear that political fallout might induce them to want to renegotiate contracts.

C. A proposal to Revamp Azerbaijan's Fiscal Framework

23. In line with international trends and IMF policy advice on RRDC, a revamped fiscal framework in Azerbaijan anchored on a fiscal rule and strong institutional arrangements could help the authorities address key fiscal challenges. A fiscal rule could provide a clear anchor to entrench discipline, credibility and predictability in fiscal policy decisions. The rule, if well defined, could help preserve the hard-won gains in macro stability while ensuring intergenerational equity and dealing with the volatility of oil revenue.

Simulations of alternative fiscal rules

24. A first set of simulations—generated with an Excel-based template developed by the Fiscal Affairs Department (FAD) of the IMF—help analyze and visualize the trade-offs associated with alternative PIH-based (Box 3). The simulations compute fiscal sustainability benchmarks and enable a comparison of key fiscal indicators for three alternative PIH-based rules (i) *the traditional PIH rule*; (ii) the *modified PIH (MPIH),* which allows for an increase in the non-oil primary balance above the PIH sustainability benchmark but needs to be offset with a consolidation effort to return to the PIH benchmark by 2023; and (iii) the *fiscal sustainability framework (FSF),* which incorporates the impact of higher public investment on growth, and non-resource revenues, generating a fiscally sustainable path consistent with a lower level of financial wealth.

[13] Other crucial elements to foster efficiency in public investment include: (i) selection of projects with clear links to the development strategy; (ii) an independent "gate-keeper" before approvals; (iii) procurement process in line with best practices; and (iv) post-evaluation of costs and impact assessments.

25. The FAD template also facilitates the simulations of alternative price-based fiscal rules (Box 4). The results emphasize the trade-offs of two alternative price-based rules in terms of smoothing out volatility and generating different levels of financial assets. The figure in Box 4 also highlights how for a given price formula, higher/lower structural targets are associated with an increase/decrease the level of financial savings over time. A price-based formula on a slow-moving average may achieve higher smoothing of expenditure but at the cost of possibly large discrepancies between projected and actual revenues.

Options for the fiscal rule

26. A traditional PIH rule would be the first best option for Azerbaijan. This recommendation is consistent with recent IMF guidance for RRDC establishing that for countries with shorter reserve horizons, the rule or anchor for fiscal policy decisions should take into account the soon to come exhaustibility of oil resources. The modified PIH or the Fiscal Sustainability Framework do not seem advisable for Azerbaijan at this stage for three main reasons: (i) investment is already very high by developing country standards, and the authorities are thus likely bumping into absorptive capacity constraints; (ii) growing concerns about the low growth impact of government spending, given weaknesses in the management of investment programs and opportunities for corruption; and (iii) increasing overheating risks as a result of the combined effect of a closed output gap and expansionary fiscal policy as announced in the 2013 budget. The PIH, combined with an embedded price-based rule, could help smooth the volatility of oil revenue. (see Box 3).[14]

27. Bringing support to the PIH rule would require strong communication efforts and possibly, a well-defined escape clause to enable countercyclical fiscal policy. A public understanding of the rule could generate support and credibility on its enforcement. The communication could focus on "translating" the non-oil deficit target into the maximum gap allowed between the government spending and the revenue excluding oil, for example. As identifying the economic cycle in Azerbaijan is challenging due to changes in the economic structure, a well-defined escape clause could allow for temporary and limited deviations in the face of major economic crisis (e.g., Peru). An embedded price-based rule could also act as a vehicle to smooth the volatility of oil revenue and the macroeconomic impact of fiscal spending over the short term.

28. A second best option for Azerbaijan is to adopt a price-based rule along with a specific "structural" primary balance set at a level consistent with long-term solvency. The structural primary balance is computed using "structural" oil revenues based on a price-based formula. The two price-based rules used in the simulations (5/1/5 and 12/1/3) would have resulted in an oil

[14] See Dabla-Norris (2011).

budget price of $99 (similar to the one underlying the 2013 budget) and $77 dollars per barrel, respectively in 2013. The combination of the rule 5/1/5 with a structural primary balance of -5 percent of non-oil GDP, while providing space for large non-oil primary deficits, would result on a substantial withdrawn of oil funds by 2018. Both smoothing rules could avoid the run down of fund resources while combined with a structural target of 5 percent of non-oil GDP). Except for the rule 5/1/5 combined with the structural target of -5 percent non-oil GDP, all the rules would be consistent with the sustainable level of about 35 percent implied by the PIH over the medium term. A well-defined escape clause could also allow for temporary and limited deviations in the face of major economic crisis to enable countercyclical fiscal policy. As shown in the simulations, the decision on the specific price-based rule and the structural target decisions could be calibrated taking into account the government's desire in balancing spending and savings levels.

Box 3. Azerbaijan: Simulating Alternative PIH-based Fiscal Rules

Several key assumptions underpin the simulations: (i) the oil reserves last until 2030, following a sharp oil production decline in 2025; (ii) non-oil sector grows at a constant growth rate of 5 percent in real terms per year; (iii) the oil revenue share accruing to the government remains constant at about 60 percent; and inflation stabilize at 5 percent per year, while the average real rate of return on financial assets is 2 percentage points above the non-oil growth rate. The simulation assumes Azerbaijan has no outstanding liabilities.

The simulations compute fiscal sustainability benchmarks and enable a comparison of the paths for the non-oil primary deficit, financial wealth, primary expenditure, and non-oil revenue for three alternative PIH-based rules:

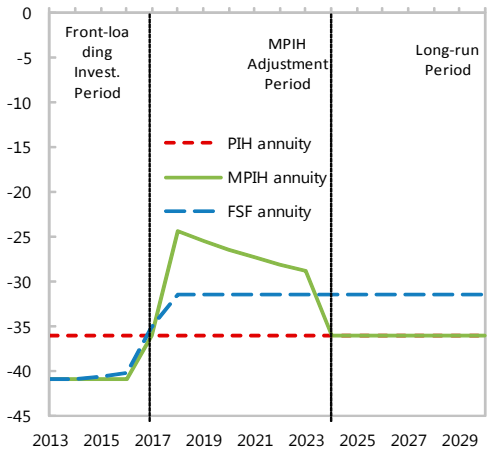
- *Traditional PIH rule,* where the non-oil primary balance remains constant over time and is financed with the rate of return on the net present value of projected oil revenues; In this case, the PIH sustainability benchmark is equal to -35 percent of non-oil GDP.
- *Modified PIH (MPIH),* which allows for an increase in the non-oil primary balance above the PIH sustainability benchmark by about 4 percentage points of non-oil GDP per year on average during 2013–16 (to maintain the public investment at the high 2012 level). The simulation provides an estimate of the inter-temporal trade-off between an increase in spending in the short-term and future fiscal adjustment needs. As shown in figure 3a, the front-loaded investment would need to be offset with a substantial consolidation effort by about 9 percent on non-oil GDP per year on average, smoothed over 6 years in order to return to the PIH benchmark of -35 percent by 2023.
- *Fiscal sustainability framework (FSF)*, which incorporates the impact of higher public investment on growth, and non-resource revenues, generates a fiscally sustainable path that is consistent with a lower level of financial wealth. [1/] Under this approach, fiscal spending can still be stabilized at a higher level because higher growth will have "fiscal returns" through larger non resource revenues and notwithstanding lower financial wealth relative to the PIH and MPIH approaches.

[1/] The growth impact is the standard parameter applied by FAD and is based on the amount of planned public investment (see Tabova A., and C. Baker, 2012, "Non-oil Growth in the CFA Oil-Producing Countries: How Is It different?" In Akitoby and Coorey (Eds.)) Oil Wealth in Central Africa Policy for Inclusive Growth, Washington: IMF.

Box 3 (continued)

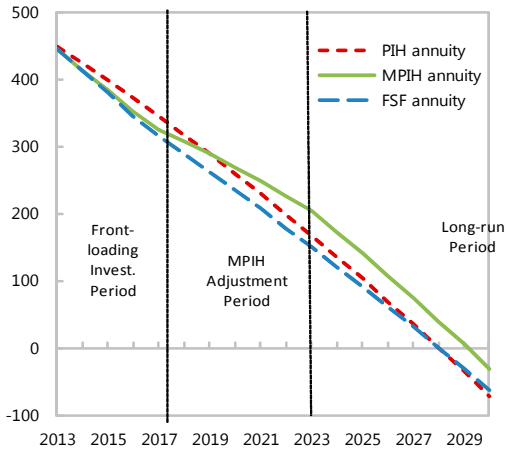
Figures 3a. Trade-offs and paths for the non-oil primary deficit and financial wealth associated with alternative PIH-based rules: PIH, MPIH, and FSF

Non-oil primary balance
(Percent non-oil GDP)



Sources: IMF staff calculations.

Financial wealth
(Percent non-oil GDP)



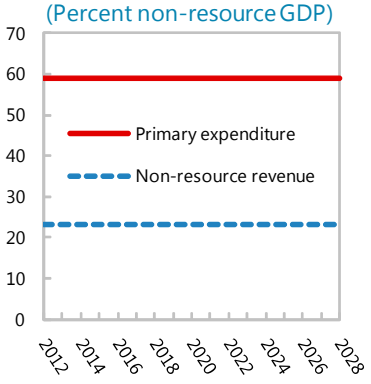
Sources: IMF staff calculations

Figures 3ab. Alternative paths for the non-oil primary expenditure and the non-resource revenue

Figure 2. Fiscal Sustainability Frameworks for Azerbaijan

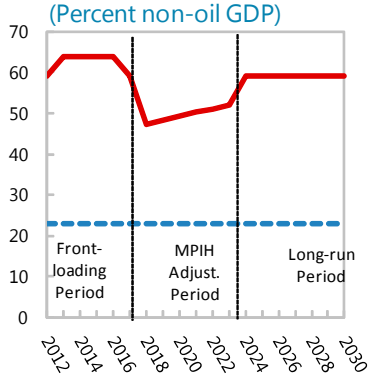
Non-oil primary Spending under alternative PIH Rules

PIH framework
(Percent non-resource GDP)



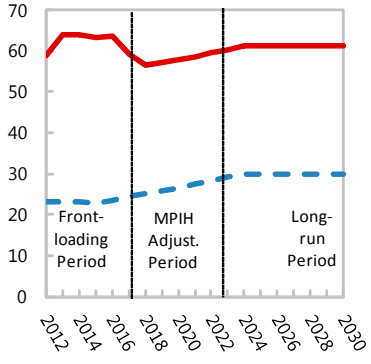
Sources: IMF staff calculations.

Modified PIH framework
(Percent non-oil GDP)



Sources: IMF staff calculations.

Fiscal sustainability framework
(Percent non-oil GDP)



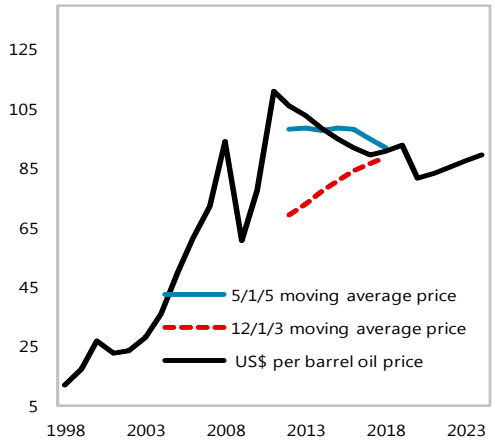
Sources: IMF staff calculations.

Box 4. Azerbaijan: Simulations of Two Price-based rules and Structural Primary Targets

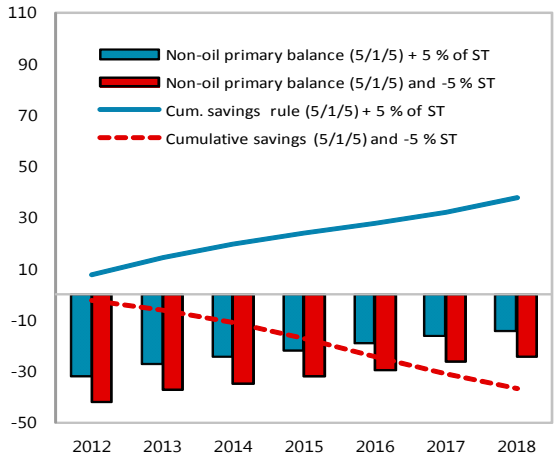
The first smoothing rule uses a simple average of oil prices over the last five years, the current year, and the futures prices for the next 5 years (Trinidad and Tobago) while the second rule uses a 16 year moving average of mineral prices (prices of past 12 years and projected price of current and next 3 years (Mongolia). The simulation focuses on the effects of price-based rules targeting a +5 and -5 percent structural target in percent of non-oil GDP.

(Percent of non-oil GDP, unless otherwise indicated)

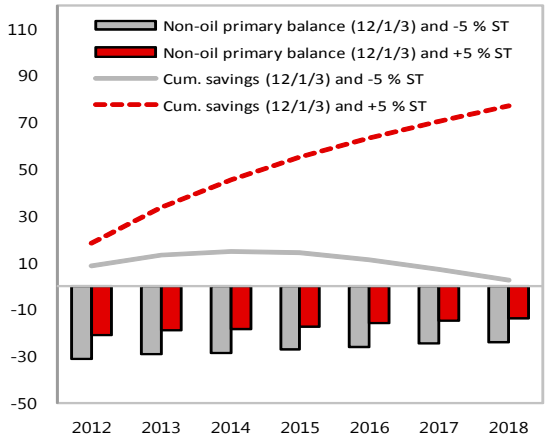
Oil price, baseline and alternative smoothing rules



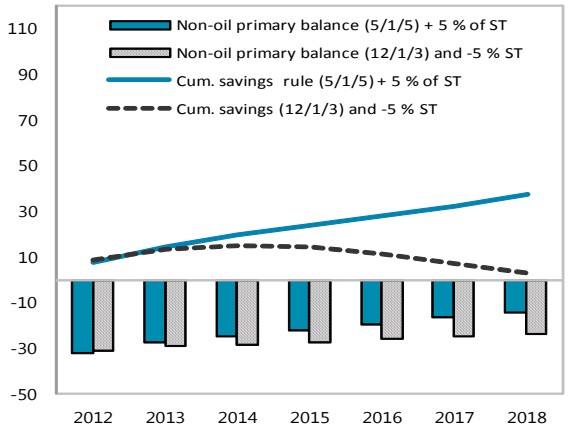
Non-oil primary balances and savings under price rule 5/1/5



Non-oil primary balances and savings under price rule 12/1/3



Balancing Spending and Savings



Source: Azerbaijani authorities and IMF staff estimates.

Supporting fiscal Institutions

29. The fiscal rule could be supplemented with strong fiscal institutions including a more stringent PFM framework, a fiscal responsibility, and a strengthened oil fund:

- The *PFM system* could be aligned with best practices to ensure at the minimum as part of the budget process, the dissemination of the underlying non-oil fiscal position and break-even oil price, main contingent liabilities and fiscal risks; transparent mechanisms for the appraisal, selection, and prioritization of investment; and adherence to the World Bank's *EITI++ initiative*.

- Adopting *a fiscal responsibility law* could also promote fiscal discipline by anchoring fiscal decisions on a rules-based framework to help guide the flows to the fund. As in Mongolia, the FSL approval or amendment could require a two-thirds parliamentary majority, though some recalibration may be allowed at the beginning of a new government term.

- SOFAZ could establish *one portfolio per objective* to increase the accountability in the achievement of different objectives. SOFAZ could provide secure or set-aside, multiyear funding for infrastructure projects in the budget within an envelope determined by the available fiscal space (including sufficiency of the buffer), spending absorption capacity, and long-term sustainability. Within the spending envelope, allocation could be in line with an "infrastructure needs assessments" developed jointly with developmental partners (e.g., WB or ADB).

30. Whatever rule the authorities select, it would be important to abide by the rule. Fiscal rules, even if supplemented by supportive fiscal institutions, will not be effective if there is no willingness of the political class to abide by them. Absence of parallel reforms to address sustainability of the pension system and major public entities (e.g., IBA) and/or monitor contingent liabilities and fiscal risks (e.g., SOCAR) could also severely undermine the credibility in the new framework.

31. The IMF stands ready to provide technical assistance to the Azerbaijani authorities to explore in more detail potential fiscal rules and new supportive fiscal arrangements (including a fiscal responsibility law) with a view to revamping the fiscal framework in the near term. As the economy diversifies on the medium-term, the fiscal framework could be aligned with other principles more relevant to non-resource rich economies.

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SEQUENCING IN EXCHANGE RATE FLEXIBILITY IN AZERBAIJAN[1] [2]

Like many hydrocarbon-intensive exporters, Azerbaijan maintains a managed exchange rate policy vis-à-vis the US dollar. This policy has intuitive appeal as international oil markets are priced in dollars and maintaining a managed exchange rate gives some benefits of "importing" a relatively stable monetary policy. However, this limits policy options and, in the case of Azerbaijan, has contributed to inflation and output volatility. Though there remain benefits for maintaining the current exchange rate policy in the short term, the costs will increase as Azerbaijan further diversifies its economy and increases financial integration. This short note builds on existing IMF assessments of exchange rate policy in Azerbaijan by laying out some practical steps the authorities can take in order to begin sequencing in greater exchange rate flexibility. The first section details some of the current structural policy limitations on introducing a more flexible exchange rate, section II draws lessons from other countries that have moved from fixed to flexible arrangements, and section III identifies practical steps for going forward in Azerbaijan. Drawing on international experience and previous IMF work in Azerbaijan, the key message is that orderly and durable transitions from fixed to more flexible exchange rate arrangements normally result from the gradual introduction of enhanced degrees of flexibility and the implementation of policies that can mitigate risks even if all of the elements supporting a flexible exchange rate are not in place. Even if greater flexibility is not introduced in the short-run, building capacity will improve the monetary policy framework and give policy-makers more options for changing exchange rate policy in the future.

A. Some Challenges in Introducing Exchange Rate Flexibility

1. The de facto stabilized exchange rate regime has contributed to inflation and output volatility in Azerbaijan. Monetary policy is dominated by heavy government capital expenditures that are strongly dependent on oil revenue. With the current managed exchange rate regime, public spending requires converting dollar denominated oil revenues for local currency in an environment in which there are insufficient instruments for effective sterilization and the monetary policy transmission channel is weak. The result has been volatility and an appreciation of the real effective exchange rate, which hurts competitiveness and prospects for export diversification.

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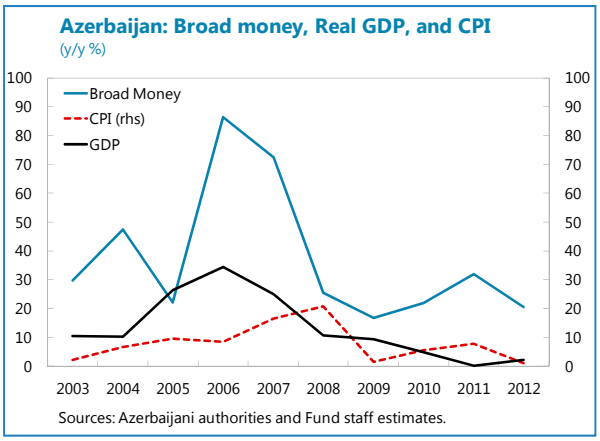
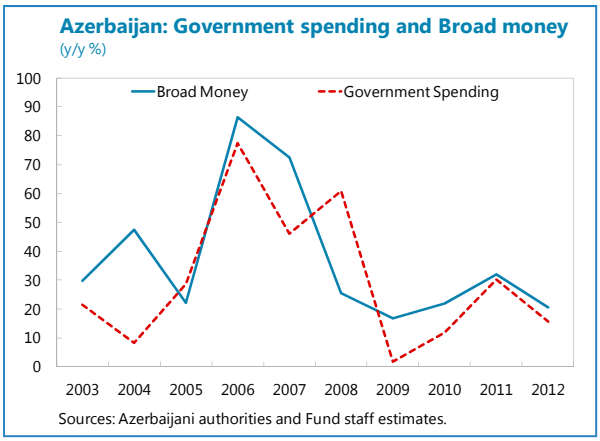
[1] This note reflects many of the findings and recommendations of a March 2012 Technical Assistance mission by the IMF's Monetary and Capital Markets department.

[2] Prepared by B. Quillin (MCD).

2. A more flexible exchange rate regime—whether a more flexible managed arrangement or a form of float—could contribute to lower inflation and volatility in response to shocks. A simulation reported in the January 2012 *Selected Issues* found that the impact of an oil price shock or a spike in government expenditure on inflation and GDP growth is significantly more muted and of shorter duration in a more flexible exchange rate regime.[3] Though countries—particularly those with minimal exposure to short-term capital flows—may benefit from pegging their exchange rates to reinforce credibility and discipline in macroeconomic policy, the costs may increase as economies mature. As Azerbaijan further diversifies its economy, the benefits from introducing greater flexibility will increase.





3. Yet moving to a more flexible exchange rate regime in Azerbaijan requires the sequencing in of a number of pre-conditions and reforms in the monetary policy setting framework. Even if greater flexibility is not introduced in the short-run, building capacity will improve the monetary policy framework and give policy-makers more options for changing exchange rate policy in the future. The current policy regime is heavily organized around the support of the stabilized exchange rate and may not sustain a shift towards greater exchange rate flexibility due to a number of structural limitations**:**

- The Central Bank of Azerbaijan (CBA) publishes an official exchange rate on a daily basis and intervenes in the foreign exchange market if the market rates deviates by more than

[3] Shahmoradi, A., 2012, "Exchange Rate Policy and Macroeconomic Costs in Azerbaijan: Insights from a DGSE Model," *Republic of Azerbaijan: Selected Issues*, International Monetary Fund.

0.14 cents. There is no price discovery process for foreign exchange market participants: the official exchange rate is the benchmark for FX transactions and the size of an exchange rate corridor used by the CBA is unknown.

- There is a monopsony in the supply of foreign currency that stunts competition and the development of a true foreign exchange market. The State Oil Fund (SOFAZ) is the key supplier of US dollars to the market and it exercises great influence in the development and volatility of the exchange rate. The process by which SOFAZ chooses bank counterparties in which to sell dollars is not always transparent and prevents the development of a true market mechanism. There are currently about 5 or 6 banks that are allowed to purchase FX directly from SOFAZ and the remaining 46 commercial banks must then bid from them at premium rates. Competition is further limited by the absence of foreign investor demand for domestic currency investment as the country's securities markets are undeveloped with an undiversified investor base and illiquidity in the foreign exchange market.

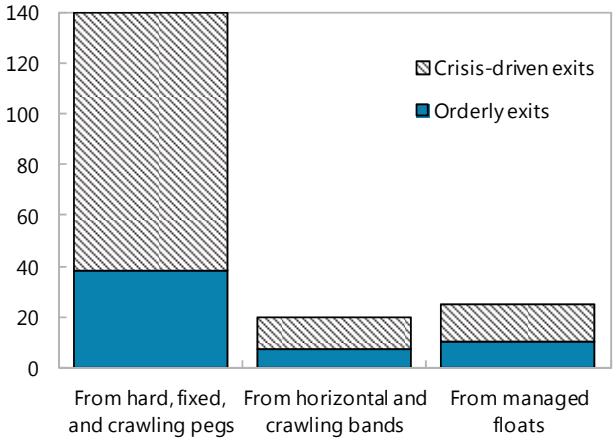
- The dynamics of SOFAZ's management of foreign exchange is the source of a persistent structural liquidity glut. The Ministry of Finance instructs SOFAZ to transfer revenue to the budget in domestic currency at various times of the year. This leads to volatility in foreign exchange sales as the transfer amounts vary by the government's financing needs and can result in the supply of much larger amounts of dollars than the financial sector can absorb, necessitating CBA intervention.

B. Lessons From Other Countries That Have Moved From Fixed to Flexible Exchange Rates

4. Cross-country experiences suggest that orderly and durable transitions from fixed to more flexible exchange rate arrangements result from the gradual introduction of enhanced degrees of flexibility and the implementation of policies that can mitigate risks even if all of the elements supporting a flexible exchange rate are not in place.

- The majority of transitions in exchange rate regime have been disorderly and driven by crisis-motivated necessity, particularly for transitions from hard pegs. This historical record has contributed to the "fear of floating" or hesitation that many policy-makers experience in sequencing in greater exchange rate flexibility, even when the benefits of a more flexible arrangement are generally accepted. The perceived costs of a regime shift include: (1) loss of policy credibility; (2) the impact of an appreciation on competitiveness and diversification; (3) higher inflation; and (4) losses from currency mismatches.[4] This fear has been pervasive among major oil exporting economies as the vast majority maintain some form of managed exchange policy, particularly among developing and emerging market economies.

Orderly Versus Disorderly Exits to More Flexible Exchange Rates, 1990–2002



Note: Exits reflect (i) from all hard pegs, fixed and crawling pegs to bands and floats; (ii) from bands to floats; and (iii) from managed floats to independent floats.

Source: Duttagupta, R., G. Fernandez, and C. Karacadag, 2005, "Moving to a Flexible Exchange Rate: How, When, and How Fast?," International Monetary Fund, Economic Issues, 38.

- Cross-country experience suggests that the risks of a disorderly adjustment and the management of the costs of adopting a more flexible exchange rate can be mitigated by adopting flexibility at a gradual pace while, at the same time, addressing any policy or institutional shortcomings needed to support a fully flexible regime. The majority of exits to more flexible exchange rate arrangements have been driven by crisis related events. Among countries that have made orderly transitions from hard pegs to more flexible options, only about 40 percent made the step in an orderly manner and the rest were necessitated by crises. Looking at those countries that made orderly exits, many adopted a sequenced, gradualist approach towards flexibility. For example, Chile and Poland moved from crawling pegs to crawling bands and then widened those bands over 14 and 5 years, respectively,

[4] Adapted from Ötker-Robe, I., D. Vávra, and others, 2007, "Moving to Greater Exchange Rate Flexibility: Operational Aspects Based on Lessons from Detailed Country Experiences," International Monetary Fund.

before moving to floating regimes. Israel introduced flexibility within a managed arrangement and, at one point, widened its crawling band to 55 percent.[5]

Exchange Rate Classification of the World's Major Oil Producing Countries

	Oil production (thousand bbd), 2011	Oil production (% global total), 2011	IMF AREAER Exchange Rate Classification (de facto)
Canada	3,522	4.3	Free floating
Nigeria	2,457	2.9	
Norway	2,039	2.3	
United Kingdom	1,100	1.3	
United States	7,841	8.8	
Brazil	2,193	2.9	Floating
Colombia	930	1.2	
Indonesia	942	1.1	
China	4,090	5.1	Crawl-like arrangement
Kazakhstan	1,841	2.1	
Angola	1,746	2.1	Stabilized arrangement
Azerbaijan	931	1.1	
Iraq	2,798	3.4	
Kuwait	2,865	3.5	Conventional peg
Oman	891	1.1	
Qatar	1,723	1.8	
Saudi Arabia	11,161	13.2	
United Arab Emirates	3,322	3.8	
Algeria	1,729	1.9	Other managed arrangement
Iran	4,321	5.2	
Mexico	2,938	3.6	
Russian Federation	10,280	12.8	

Sources: BP Statistical Review of World Energy (June 2012) and IMF *Annual Report on Exchange Arrangements and Exchange Restrictions*.

[5] Duttagupta, R., G. Fernandez, and C. Karacadag, 2004, "From Fixed to Float: Operational Aspects of Moving Toward Exchange Rate Flexibility," IMF Working Paper WP/04/126.

- A framework approved by the IMF Executive Board in 2004 found that the transition to a floating regime required four key components: (1) deep and liquid foreign exchange markets; (2) systems to review and manage exchange rate risks; (3) a consistent intervention policy; (4) an appropriate nominal anchor.[6]

- It is not necessary to have these four components fully operational before introducing more flexibility and there may be a mutually reinforcing relationship between flexibility and capacity generation. While there may be costs to the premature introduction of more flexibility, there are also costs in unduly delaying policy adjustment until all of the policy and institutional pre-requisites are satisfied.

- Delay can contribute to market generated pressures for a rapid and disorderly exit. Slowly introducing a wider exchange rate band and limiting central bank interventions may help stimulate more foreign exchange activity and begin the process of shaping the expectations and behavior of private sector actors to begin developing a true FX market and risk management approaches. A clear communications strategy to notify market participants and the public is essential.

- Countries that have successfully made an orderly transition from fixed to more flexible arrangements illustrate the benefits of using a gradualist and progressively applied model of making the adjustment. Previous work has found that Chile's successful transition to an increasingly more flexible exchange rate during the 1980s and 1990s provides an appropriate exemplar for Azerbaijan given Chile's relatively underdeveloped FX and financial markets at the start of its exchange rate transition and Chile's reliance on natural resource exports.[7]

- Chile's transition was exceptionally gradual as the move away from a tightly fixed exchange rate began with the introduction of a crawling band mechanism in 1984 and, after a number

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[6] Duttagupta, R., G. Fernandez, and C. Karacadag, 2005, "Moving to a Flexible Exchange Rate: How, When, and How Fast? International Monetary Fund, Economic Issues 38.

[7] Mineshima, A. and N. Westelius, 2010, "Moving Toward More Exchange Rate Flexibility," unpublished, International Monetary Fund.

of adjustments to the band's width, rate of crawl, and adjustments to its central parity (three devaluations and five revaluations), ended in a free float in 1999.

- Over the course of this mostly orderly fifteen years of transition, supporting policy elements were gradually introduced so that by the time of the move to a free float, Chile had a well developed and regulated financial market with highly developed derivates products, a low level of dollarization, well hedged FX risks in the financial and corporate sectors, and an implicit inflation targeting framework. Yet, at the start of the transition, Chile began with a relatively weak FX market and only reasonably well developed financial markets.

C. Practical Steps for Introducing Greater Exchange Rate Flexibility

5. The sequencing in of a transition towards a more flexible exchange rate in Azerbaijan begins with a widening of the band around the official exchange rate and initiating a process of building the foundations for the development of a true FX market with explicit short, medium, and long-term objectives to shape market expectations for an orderly and gradual transition. These actions will need to be accompanied by a clear communications strategy so that market participants and the public are aware of the sequencing of reforms. In particular, the gradualist pace of the reforms will need to be emphasized.

- In the short-run, market participants could be allowed to make FX trades at a progressively wider and explicit band around the official exchange rate and an explicit intervention strategy could be announced by the CBA. This will begin the price discovery process for the Manat and give the CBA and commercial banks time to begin developing systems for monitoring and trading and adjust to higher levels of exchange rate volatility. This will enrich the interbank market, where price discovery occurs, through the decentralized allocation of foreign exchange by market participants. A sense of two-way risk would encourage market participants to seek out the risks to taking short and long positions. The experience of Israel may provide some useful guidance on sequencing: under an exchange rate band, the intervention rate was allowed to vary daily based on market pressures and the central bank organized daily market clearings until the system was replaced by market participants.

- The widening of the band will also motivate investment in the creation of formal procedures for monitoring and forecasting liquidity and BOP projections by the CBA. This should be conducted in cooperation with SOCAR and SOFAZ, the Public Debt Management Agency, and the Ministry of Finance in order to coordinate on treasury bills and CBA note issuance so that the short-term yield curve could develop.

- Over the medium and longer-term, a market oriented approach will need to be developed to provide US dollars to the market. More commercial banks should be allowed to participate in the FX market. There will need to be more transparency in the role of SOFAZ and its market activities. Diversifying the sources of foreign exchange will also create the conditions for two-way trading. Introducing some flexibility may also serve to motivate the development of forward market activity, particularly with some support from the central bank. For example, the central banks of Ireland and New Zealand during the 1980s and Finland during the 1970s supported the development of forward market activity by providing cover of officially quoted forward rates to commercial banks in the first instance. Chile authorized the development of a forward market while widening its crawling rate band.

- Plans should then be established for abandoning the official exchange rate and the announcement of a target band with an explicit intervention strategy. The move towards this decision should be accompanied by reforms that improve the transmission channel of monetary policy and the implementation of a market maker program for secondary debt trading. Ultimately, this will allow the authorities to move away from the exchange rate as a nominal anchor with the last stage objective of moving to inflation targeting.

- Fiscal policy will need to be closely coordinated with these adjustments in exchange rate policy. Whether fixed or floating, fiscal policy must be consistent with the chosen exchange and the current “fiscal dominance” in Azerbaijan does raise concerns on policy consistency. Yet this further strengthens the argument for a gradually building the foundation for a more flexible arrangement so that the fiscal policy stance can be adjusted.

- Yet, at the example of Chile suggests, moving towards an orderly adjustment can (and will most likely always) occur in the absence of full policy consistency and well developed financial markets. In fact, beginning the exchange rate adjustment now can begin a virtuous

cycle of allowing capacity and policy consistency to be built in response to the need to support and accelerate the introduction of more flexibility in the medium and long-term.