INTERNATIONAL MONETARY FUND

REPUBLIC OF MOZAMBIQUE

TECHNICAL ASSISTANCE REPORT — FUEL SUBSIDY AND PRICING REFORM

January 2023

This technical assistance report on Republic of Mozambique was prepared by a staff team of the International Monetary Fund. It is based on the information available at the time it was completed in December 2015.

Republic of Mozambique

Fuel Subsidy and Pricing Reform

**Laura Jaramillo, Samah Mazraani, Esther Palacio,
Wei Sh**

INTERNATIONAL MONETARY FUND

Fiscal Affairs Department

MOZAMBIQUE

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ABBREVIATIONS AND ACRONYMS

AFPM	Automatic Fuel Pricing Mechanism
CACL	Liquid Fuels Procurement Committee
CCT	Conditional cash transfer
CIF	Cost, insurance, and freight
CT	Cash transfer
FAD	Fiscal Affairs Department of the IMF
FOB	Free on board
GDP	Gross Domestic Product
IMF	International Monetary Fund
IMOPETRO	Liquid Fuels Procurement Operator
INE	National Statistics Institute
LC	Local currency
LPG	Liquefied petroleum gas
OECD	Organization for Economic Co-operation and Development
PETROMOC	State oil distribution company
PASD	Direct Social Support Program
PASP	Productive Social Action Program
PSF	Price stabilization fund
PSSB	Basic Social Subsidy Program
MEF	Ministry of Economy and Finance
MIREME	Ministry of Mining and Energy
ENSSB	National Basic Social Security Strategy
VAT	Value Added Tax
WEO	World Economic Outlook

PREFACE

In response to a request from the Minister of Economy and Finance, Mr. Adriano Afonso Maleiane, a mission from the Fiscal Affairs Department (FAD) of the International Monetary Fund (IMF) visited Maputo during October 7 to 20, 2015 to advise on fuel subsidy reform and implementation of an automatic pricing mechanism, and discuss supporting measures including strengthening of the social safety net. The mission comprised Ms. Laura Jaramillo (head), Ms. Samah Mazraani and Ms. Wei Shi (all FAD), and Ms. Esther Palacio (economist from the Resident Representative's office).

The mission received excellent support from the authorities of the Ministry of Economy and Finance, the Ministry of Mineral Resources and Energy, and other areas of the Government of Mozambique. The mission met with Minister of Economy and Finance Mr. Adriano Afonso Maleiane and Minister of Mineral Resources and Energy Mr. Pedro Couto. Within the Ministry of Mineral Resources and Energy, the mission held discussions with National Director of Planning and Cooperation Mr. Eugénio Simbine; National Director of Energy Mr. Pascoal Alberto Bacelo; National Director of Hydrocarbons and Fuel Mr. Moisés Paulino; Deputy Director of Hydrocarbons and Fuel Mr. Almirante Dima. Within the Ministry of Economy and Finance, the mission met with Director of Economic Studies Mr. Vasco Correia Nhabinde; National Director of Planning and Budget Mr. Momad Piaraly Jutha; Deputy of Planning and Budget Ms. Chamila Ali; and Treasury Deputy Director Mr. Mastalino Mastala. The mission also met with Director of Tax Policy of the Revenue Authority Mr. Zefanias Tamele; Director of Research and Statistics of the Central Bank Mr. Felisberto Navalha; Director of National Accounts of the National Statistics Institute Mr. Firmino Guiliche. In addition, the mission met with representatives of the liquid fuels procurement operator IMOPETRO; the state oil distribution company PETROMOC; and private oil distribution companies. Furthermore, it met with representatives from ILO, UNICEF and the World Bank.

The mission wishes to thank the authorities for their excellent cooperation and for providing the information and data needed to prepare this report, and especially to Mr. Eugénio Simbine and Ms. Marla Matos for their assistance throughout the mission. The mission would like to express its appreciation to the IMF resident representative, Mr. Alex Segura-Ubiergo, and his staff for their logistical and technical support. In addition, it would like to thank Adam Boyd, Ana Popovich, and Mileva Radisavljević for their administrative support and Ms. Marina Costa, Mr. Jorge Leao, and Ms. Corinne Capela for their excellent interpretation service.

EXECUTIVE SUMMARY

Fuel subsidies in Mozambique are costly. Domestic fuel prices have not been adjusted since 2011. This has resulted in substantial costs to the budget, estimated at 1.1 percent of GDP in 2014. The cost of fuel subsidies has been impacted by inefficiencies in the fuel import system, including CIF pricing not aligned with international benchmarks, bank syndicate costs, and high demurrages.

Fuel subsidies have proven to be a very expensive way to protect the poor. In Mozambique, almost two-thirds of the total subsidy benefit is received by the richest 20 percent of the population. In contrast, the poorest 20 percent of the population receive less than 5 percent of the subsidy share.

Fuel subsidy reform will impact household welfare if prices increase. On average, in Mozambique, a fuel price increase of 20 percent is estimated to decrease income by close to 2 percent for households in the bottom 40 percent of the welfare distribution. Social unrest during previous episodes of fuel price adjustments raises particular concern with respect to the adverse impact of fuel price increases on vulnerable households, especially in urban areas. International experience has shown that successful fuel subsidy reforms need to be carefully planned, and based on a comprehensive reform strategy. Key elements for the reform include actions to:

- **Reform the fuel price structure and increase transparency.** The current fuel price formula can be streamlined and made more transparent. To better align incentives throughout the fuel import system, reference pricing should be considered. Reference pricing can be implemented while maintaining a central tender system, or moving to a liberalized regime for fuel imports.

- **Depoliticize fuel pricing and adopt an automatic fuel pricing mechanism (AFPM).** The AFPM entails setting retail fuel prices in line with the fuel price formula and adjusting prices on a monthly basis. It can include price smoothing to avoid sharp changes in retail prices. An independent agency can help to ensure that fuel prices are adjusted without political interference.

- **Implement measures to mitigate the impact of reform on the most vulnerable.** Social and cash transfer programs to mitigate the impact of fuel price increases on the most vulnerable need to be identified. Consideration should also be given to programs targeted at vulnerable households in urban areas, as this segment of the population is exposed to price increases and receives relatively less coverage than rural areas under the existing social safety net. Transportation subsidies are an option to consider, although caution is needed to manage their fiscal cost.

- **Ensure transparency and launch a public communication strategy.** A comprehensive communications campaign throughout the reform process can help generate broad political and public support. Stakeholder consultation and consensus building are also crucial determinants for success.

The current juncture of low international fuel prices favors the implementation of an AFPM in the short run because consumers would not necessarily see significant price increases upfront. However, international fuel price movements are unpredictable. Adequate sequencing is needed to allow time to get the key ingredients of the reform in place, as outlined in Table 1. Actions can start now, with the aim of introducing the AFPM and reference pricing within the next 6 to 12 months.

Table 1. Proposed Action Plan for Implementation of Fuel Subsidy Reform

Action	Main Objective	Proposed Timeframe
Improve the fuel price structure and increase transparency		
1. Transparently project, budget, record, and report net taxes from fuel	To comply with sound fiscal management practices	Immediately
2. In the interim before implementation of the AFPM, publish information on total fuel subsidies, and possible fiscal risks if international fuel prices are higher than those underpinning the budget forecast	To improve transparency and fiscal risk management	Include in FY2016 budget documentation
3. Harmonize VAT and customs duties across fuel products and identify target fuel revenue levels	Achieve tax policy efficiency, and equity objectives; and prepare for implementation of AFPM	Start now; complete by end December 2015
4. Streamline the existing pricing formula and publish on a monthly basis on an external website (Table 5 in the report)	Increase transparency to improve understanding of the formula among all agents involved	Start now; complete by end December 2015
5. Assess internally and carry out consultation with stakeholders to design a strategy to move to a more efficient fuel import system, via reference pricing. This also includes an assessment of whether to keep a central tender system, or move to a liberalized regime for fuel imports.	Decide on an efficient fuel import market structure that properly aligns incentives to reduce fuel import costs	Start now; complete by end 2015
6. Commission a rigorous independent market study to determine efficient distribution, retail, and transport margins	Provide the proper incentives for different agents to invest in the sector	Start now; complete by 2016Q1
7. Design reform plan to improve the financial position of PETROMOC	Improve the efficiency of the fuel import system as a whole and ultimately reduce import costs	Start now; complete by 2016Q2
8. Implement reform plan to improve the financial position of PETROMOC	Improve the efficiency of the fuel import system as a whole and ultimately reduce import costs	Start in 2016Q3
9. Introduce reference pricing	To upgrade to an efficient fuel import market structure that properly aligns incentives to reduce fuel import costs	2016Q3
Depoliticize fuel pricing and move to an automatic fuel pricing mechanism (AFPM)		
10. Implement an AFPM with smoothing	Depoliticize domestic fuel pricing	2016Q3
11. Create and make operational an independent agency in charge of the fuel formula and implementing the AFPM	Depoliticize price setting to avoid the re-emergence of subsidies	Start now; complete by 2016Q4
Implement measures to mitigate the impact of reform on the most vulnerable		
12. Identify social and cash transfer programs to be expanded. Consideration can be given to transportation subsidies.	Prepare mitigating measures in case fuel prices increase once AFPM is in place	2016Q1
13. Strengthen institutional capacity to make social programs more efficient (improve registry, payment, and targeting systems)	Prepare mitigating measures in case fuel prices increase once AFPM is in place	Start now; complete by 2016Q2
14. Introduce budget allocation for selected mitigating measures in the budget	Prepare mitigating measures in case fuel prices increase once AFPM is in place	Include in FY2017 budget
Launch a public communication strategy		
15. Launch a comprehensive communication strategy for fuel subsidy reform	Mobilize buy-in for the reform and ensure public support	Throughout 2016

I. INTRODUCTION

1.   **In the context of its fiscal reform agenda and low global oil prices, the government of Mozambique has identified fuel subsidy and pricing reform as an urgent priority.** To assist the authorities in the process of designing a fuel subsidy reform strategy, this report provides an assessment of the current costs of fuel subsidies, estimates the potential distributional impact of reform across income groups, and presents options for a successful fuel subsidy reform strategy, drawing on international experience. The remainder of the report discusses the main recommendations, with more detailed annexes on the fuel price structure, the automatic fuel pricing mechanism, and the social impact and mitigating measures of fuel subsidy reform.

II. FUEL SUBSIDIES ARE COSTLY

2.   **Domestic fuel prices have not been adjusted since 2011, resulting in substantial costs to the budget (See Annex 1).** Total fuel subsidies are estimated at 1.1 percent of GDP in 2014 and this figure may have reached 1½ percent of GDP in earlier years (Figure 1).[1] However, this cost does not capture the stock of arrears and the cash-flow burden on fuel distributors that get reimbursed with a lag, nor all the losses to the state oil distribution company PETROMOC. Low international oil prices have resulted in a significant reduction in subsidies for 2015. Indeed, if fuel prices were to follow the World Economic Outlook (WEO) forecast and pump prices remain unchanged in 2015 and 2016, Mozambique would see net taxes rather than subsidies. However, there is significant risk that subsidies will reemerge given the high volatility of oil prices.

Figure 1. Total Subsidy, 2014 Estimate and 2015–16 Projections

(Percent of GDP)[1/]
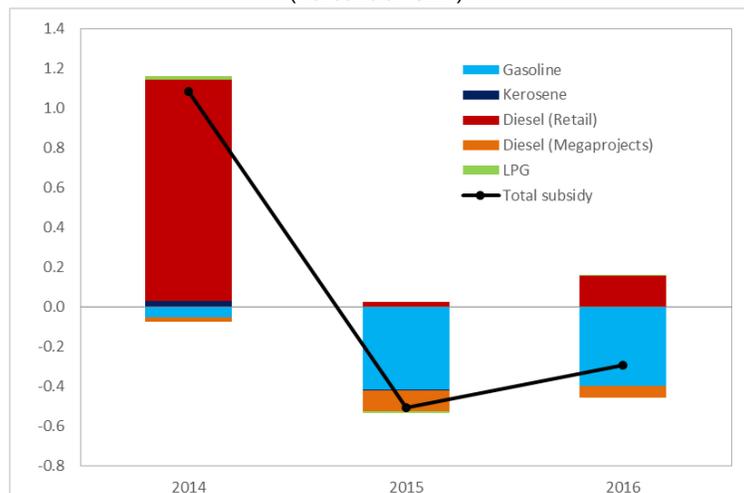
Note: For explanation of estimates, see Table 3 in Annex 1.

Sources: Authorities, and authors' estimates and projections.

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[1] Total subsidy corresponds to the difference between the formula and retail prices, times fuel consumption, so capture only consumer subsidies. Therefore, it includes not only the amounts recognized in the budget, but also subsidies financed with arrears.

3. **Inefficiencies built into the fuel pricing formula, including those stemming from the current system of fuel imports, contribute to the high fiscal cost of fuel subsidies.** For example, there was an unforeseen increase in the gap between the formula CIF price and the international FOB price from September 2014 to February 2015, significantly increasing the total subsidy. Other inefficiencies in the fuel import system with consequences for the formula implementation and the size of subsidies include the bank syndicate costs, high demurrages, and the conversion factors used.

4. **Fuel subsidies are a very expensive way to protect the poor.** In Mozambique, almost two-thirds of the total subsidy benefit is received by households in the highest 20 percent of the welfare distribution (Figure 2). Meanwhile, households in the lowest 20 percent of the distribution receive less than 5 percent of the subsidy benefit (See Annex 3). Given limited fiscal space, fuel subsidies have over the years crowded out growth-enhancing spending.

Figure 2. Total Subsidy Share
(Percent of total subsidy)
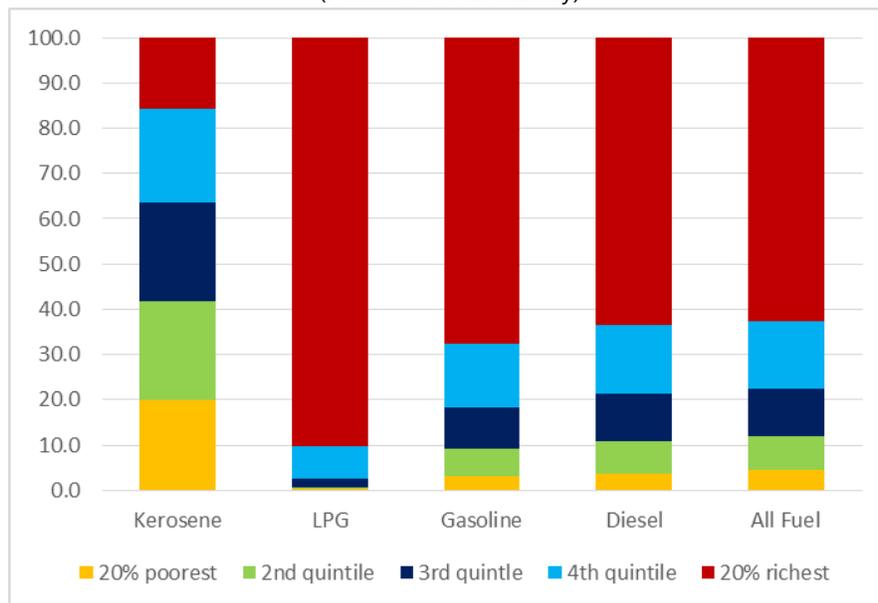
Note: Quintiles are based on national consumption per capita.
Sources: INE 2008 Household Survey, Arndt et al. (2012), and IMF staff estimates.

III. REFORM WILL IMPACT HOUSEHOLD WELFARE IF PRICES INCREASE

5. **Lower-income households will be affected if fuel prices increase (See Annex 3).** Although most of the subsidy benefits the higher income groups, fuel consumption represents 2.7 percent of total income among households in the lower 40 percent of the welfare distribution. The share of income used on fuel consumption rises to 4.2 percent when including the consumption of fuel-intensive products, such as transportation. On average, an illustrative fuel price increase of 20 percent is estimated to decrease income by close to 2 percent for households in the bottom 40 percent of the welfare distribution (Figure 3). Two-thirds of the reduction is attributable to the indirect effect of rising fuel prices on the cost of goods and services that rely on fuel products as

inputs. The impact is equally high for the urban and rural poor. Social unrest during previous episodes of fuel price adjustments raises particular concern with respect to the adverse impact of fuel price increases on vulnerable households, especially in urban areas.

Figure 3. Distribution of Welfare Impact

(Percent of household consumption)
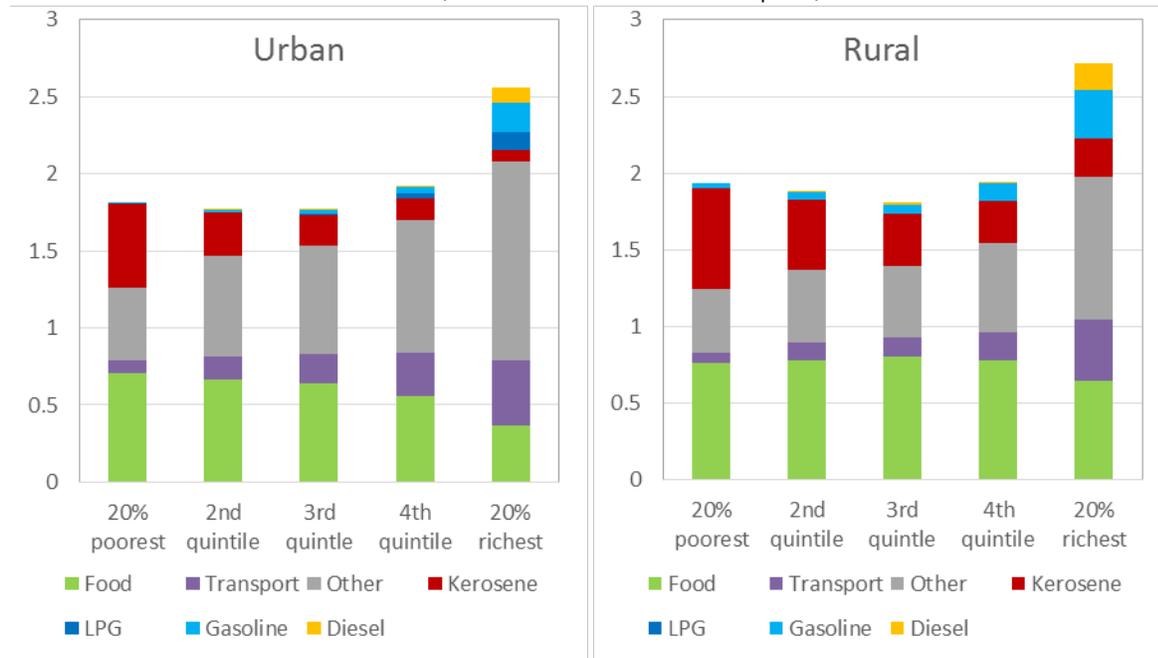
Sources: INE 2008 Household Survey, Arndt et al. (2012), and IMF staff estimates.

IV. STRATEGY FOR REFORM

6. **International experience has shown that successful fuel subsidy reform needs to be carefully planned and based on a comprehensive and well-articulated reform strategy (Clements and others, 2013).** Key elements for the reform include actions to: (1) reform the fuel price structure and increase transparency; (2) depoliticize fuel pricing and adopt an automatic pricing mechanism; (3) implement measures to mitigate the impact of reform on the most vulnerable; and (4) ensure transparency and launch a public communication strategy.

A. Reform the Fuel Price Structure and Increase Transparency

7. **The current fuel pricing structure is complex and does not adequately reflect costs associated with fuel import, distribution, and retail.** The existing formula—currently used only to estimate the size of fuel subsidies—can be streamlined and made more transparent via reference pricing. Reference pricing will also contribute to improving accountability, as the public would be able to follow and understand changes in retail fuel prices. Terms in the contract between IMOPETRO and the fuel importer would need to be consistent with reference prices in the formula. The main recommendations are (See Annex 1):

- **Use a reference price.** In order to better align incentives for IMOPETRO and fuel distributors to seek the lowest import cost possible, the CIF price in the formula should be based on a benchmark international reference price augmented with a margin consistent with efficient operations, rather than on actual import costs. Similarly, the conversion factor and exchange rate should be based on a pre-set reference.

- **Eliminate the price correction factor.** The price correction factor—intended as a backward correction for the difference between the "actual/verified" CIF import price and the "estimated" CIF price at the time of price setting—should be eliminated as it unnecessarily complicates the formula and its calculation is not clearly understood by the different stakeholders involved. Furthermore, the way the formula is currently calculated is not in line with the intended purpose.

- **Set direct import costs in the formula in line with levels consistent with efficient operations.** For example, high demurrage costs incurred because of one fuel distributor's inability to secure the bank guarantee in time should not be incorporated as higher direct import costs in the formula, but rather the distributors would have to bear the costs.

- **Regularly update formula margins** relating to distribution, retail, and domestic transport including by commissioning a rigorous market study of operating costs to ensure various agents receive a reasonable return on their investment.

- **Explicitly report the subsidy component** as the difference between the formula and the retail price.

8.   **Since the current fuel pricing formula reflects import costs, reducing inefficiencies in the fuel import system will contribute to more efficient pricing.** There is no consensus as to the best, most profitable, or most efficient system of fuel imports. However there is consensus that any system in place should be fair and transparent, and promote the right incentives to generate normal returns for market participants and benefits for the population at large.

9.   **Reform of the fuel import system could be considered to reduce inefficiencies.** The central tender system in place in Mozambique to manage the importation of fuel takes advantage of economies of scale and in principle should reduce the overall oil bill. However, implementation of the current system has created inefficiencies and in some instances lack of transparency. To better align incentives throughout the system and improve transparency and accountability, two options can be considered[2]:

- **Option 1.** Set reference prices, keep the centralized tender system conditional on an improvement of PETROMOC's financial position. With a reference price, IMOPETRO and fuel distributors would have greater incentive to properly manage and enforce the contract with oil

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[2] Further analysis and recommendations regarding the fuel import system can be found in the forthcoming analytical annex in the 2015 Article IV staff report.

importers, resulting in lower CIF prices. Reference pricing will contribute to greater accountability of IMOPETRO and the governance structure of the fuel import system, as it allows the public and other market participants to track changes in retail fuel prices. However, reference pricing within a centralized tender system—where margins are set in line with levels consistent with efficient operations—requires an improvement in the financial position of PETROMOC to prevent inefficiencies in the state company from becoming a burden to the whole system.

- **Option 2.** Use reference prices, move to a liberalized system of fuel imports. An assessment would be needed of the feasibility of liberalizing fuel imports through a licensing system. The licensing system would require that distributors adequately supply all zones of the country. A liberalized regime also requires strong government regulation and supervision to ensure a level playing field, avoid collusion among firms, and ensure quality and safety of fuel products. It would also require safeguards to ensure that the government is able to adequately collect taxes and some coordination to avoid disruptions at the port. Participation in IMOPETRO, if still needed, would be on a voluntary basis. As in option 1, reference pricing would ensure adequate incentives across the system.

B. Depoliticize Fuel Pricing and Adopt an Automatic Fuel Pricing Mechanism

10.   **The current fuel pricing system can be reformed to help depoliticize fuel pricing, protect the budget, and shield consumers from sharp price increases (See Annex 2).** Recommendations are to:

- **Adopt an automatic fuel pricing mechanism (AFPM).** This will help depoliticize fuel pricing by making it clearer that domestic price fluctuations reflect changes in international prices outside the government's control. The AFPM entails setting retail fuel prices in line with the fuel price formula and adjusting prices on a monthly basis. Information on the fuel price formula and its implementation should be made publicly available on a timely basis.

- **Determine target for fuel revenues.** This would be based on fiscal need, also taking into account price differences with neighboring countries to reduce smuggling. Social considerations may also be important. For example, the excise rate could be lower for kerosene (consumed mostly by poor households), mindful however of not distorting the pattern of consumption across fuel products. Consideration could also be given to an equalization mechanism to mitigate the impact of fuel subsidy reform in rural areas. In this case, the higher transportation and distribution costs in rural areas could be compensated through lower excises in these regions.

- **Include a price smoothing mechanism.** In the context of international fuel price volatility, the smoothing mechanism would avoid sharp changes in retail prices when applying the formula. Smoothing based on price bands are an option to consider, as they provide a good balance between ensuring fuel revenue stability and reducing price volatility. Smoothing can be achieved

by varying the excise tax. However, fuel price smoothing may not be needed for megaprojects. International experience with price stabilization funds shows that they can result in large fiscal costs and risks, and therefore are not recommended.

- **Create an independent agency to implement the AFPM.** Implementation of the AFPM by an independent agency can help ensure that fuel prices are adjusted on a regular basis without political interference. It would need to publish information on the formula and its subcomponents on a monthly basis on a dedicated website. This agency would also be in charge of the process to update the formula margins. The agency should include representatives from different ministries, the industry, and civil society. To safeguard its independence, the agency would need to be endowed with suitable financial resources and dedicated staff. It is important to note that institutional structures can help independence, but this can only be guaranteed where political commitment is strong enough to resist political pressures.

- **Over the longer term, fully liberalize the pricing of petroleum products**. More liberalized regimes—where prices are determined by private sector suppliers and move freely with international prices—tend to be more robust to the reintroduction of subsidies than automatic pricing mechanisms. Under a liberalized regime, the role of the government is to ensure that fuel markets are competitive and that there is free entry and exit from the sector, and also that there is adequate supply across the country. A well-functioning social safety net should be in place before countries liberalize to ensure that low-income groups are properly protected from future price increases. Successful implementation of an AFPM can facilitate the transition to a liberalized pricing regime by getting the public used to frequent changes in retail fuel prices and building up private suppliers' confidence that the government will not return to subsidized pricing.

C. Implement Measures to Mitigate the Impact of Reform on the Most Vulnerable

11.   **The size and nature of measures to mitigate the impact of price increases on the most vulnerable requires a strategic decision that involves trade-offs between fiscal savings, administrative capacity, and the need to achieve public support for the reform (See Annex 3).** Recommendations are to:

- **Enlarge existing cash transfer (CT) programs.** Moderate generosity in the size of cash transfers and a focus on programs linked to training and activation programs (for example, the Productive Social Action Program (PSAP)) can help avoid distorting incentives for labor market participation. Successful implementation of CT programs will require strengthening of institutional capacity with regard to targeting, monitoring, and evaluation of programs.

- **Scale up other programs.** In the short term, other programs can complement cash transfers until they are sufficiently developed. This includes expanding current health and education programs, along with enhancing the quality of their services. Focus should be given to programs

that can be expanded quickly with possibly some improvements in targeting, such as school meals and nutrition intervention.

- **Consider programs targeted at vulnerable households in urban areas**. This segment of the population is highly exposed to price increases and receives relatively less coverage than rural areas under the existing social safety net. Identifying programs for this population will require a mapping of poverty in urban areas, and an assessment of effectiveness of possible programs. Consideration can be given to accelerating the expansion of CT programs targeted to the urban poor, in particular the PSAP. Transportation subsidies could be considered, to reduce the possible negative impact of higher prices on access to education, health services, and employment opportunities. However, caution is needed to manage their fiscal cost and they would need to be carefully designed to ensure effective targeting.[3]

D. Ensure Transparency and Launch a Public Communication Strategy

12. **A comprehensive communications campaign throughout the reform process can help generate broad political and public support.** Stakeholder consultation and consensus building (with industry and consumer groups) are also crucial determinants for a successful outcome.

13. **Ensuring transparency is a key component of a successful communications strategy.** The information campaign should explain the magnitude of the fuel subsidies and their implications for other parts of the budget. Information should be made available on the size of total subsidies, annual payouts, arrears to distributors, foregone revenues, and related fiscal risks. Information should also be available on the distribution of subsidy benefits across income groups, emphasizing the regressive nature of the subsidy. Social protection programs that mitigate the impact of reform on vulnerable households should be underscored as part of the communication strategy.

V. TIMING AND SEQUENCING OF REFORM

14. **The current juncture of low international oil prices favors the implementation of an automatic fuel pricing mechanism in the short run because consumers would not necessarily see significant price increases upfront.** However, international oil price movements are unpredictable. Adequate sequencing of the reform is needed to allow time get the key ingredients of the reform in place, as outlined in Table 1. Actions can start now, with the aim of introducing the AFPM and reference pricing within the next 6 to 12 months.

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[3] Energy-intensive enterprises may need temporary government support. This issue was not addressed as part of this technical assistance mission.

I. ANNEX ON FUEL PRICE STRUCTURE

A. Current Fuel Import System and Price Formula

1.   **Mozambique meets all of its petroleum product consumption needs through imports.**
Mozambique produces no crude oil and has no refineries. Every month, about 250,000-350,000
metric tons of refined petroleum products (mainly diesel, gasoline and kerosene) originating from
India, the Persian Gulf, and Singapore are estimated to enter Mozambique via its three main
seaports. About 65 percent of this amount is destined for markets that have land borders with
Mozambique but no access to the sea, and the rest is for domestic consumption. Fuel imports have
increased substantially in 2013 and moderately in 2014 (Figure 1). Total fuel consumption increased
by about 70 percent compared to the 2011 level, reaching about 1.5 million metric tons in 2014.
Diesel accounts for the bulk of consumption (70 percent), followed by gasoline (21 percent),
kerosene consumption (8 percent, used mainly by households for cooking and lighting), and
liquefied petroleum gas (2 percent, used mainly for cooking).

Annex Figure 1. Volumes of Fuel Imports

(In metric tons)
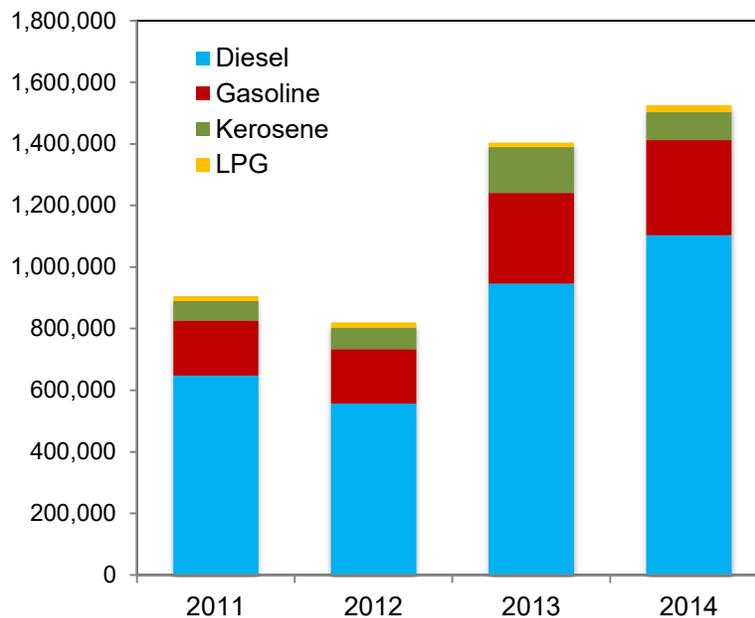
Source: IMOPETRO and IMF staff estimates.

2.   **Fuel product imports are controlled by the government through central tenders
managed by IMOPETRO.** Since 2000, petroleum products are imported by a single consortium, the
Liquid Fuels Procurement Operator (IMOPETRO), with compulsory membership for all the authorized
national fuel distributors in Mozambique. PETROMOC controls 47 percent of the fuel market and the
three other major companies (TOTAL, BP, and GALP) hold 46 percent.

3.   **The fuel import supplier is selected through a bi-annual international competitive public tender.** The framework governing the tender system is as follows: (i) IMOPETRO aggregates monthly fuel volume projections for the six-month period received from all distributors; (ii) IMOPETRO conducts the tender where international fuel suppliers submit competitive quotations; (iii) IMOPETRO passes the results of the bids of various traders to the Ministry of Mineral Resources and Energy (MIREME); (iv) a government entity composed of representatives of different ministries and the central bank, the Liquid Fuels Procurement Committee (CACL), ensures transparency and competitiveness in the process by verifying the conformity of import prices and the procurement procedure; and (v) MIREME ultimately decides the winning bid, typically choosing the lowest quotation across fuel products. The fuel import contract is for a six-month period, and can be extended up to twelve months.

4.   **Fuel imports are financed through a local bank syndicate.** IMOPETRO selects the bank syndicate following a tender process. The syndicate provides a 90 day guarantee in USD for up to 100 percent of the invoice to the fuel importer, for which the average fee has been 2.35 percent (US$30 million in 2014). It also provides short-term loans in meticais (a 75 day loan for up to 90 percent of the invoice meticais, and an additional 45 day loan for up to 50 percent of the invoice). This arrangement facilitates the ability of PETROMOC (which has serious financial difficulties) to access financial markets and foreign currency.

5.   **The price paid to the fuel supplier is determined as the sum of the FOB price around shipment date and a fixed margin set in the contract.** Payment to the supplier is based on a 5-day average Platts price (two days before the shipment date to two days after the shipment date). This is augmented by the fixed margin set in the contract for transportation and other costs, to arrive at the price paid to the importer. Prices are updated for each shipped cargo.

6.   **Domestic fuel prices have been frozen since 2011, and a price formula is used to estimate the compensation to fuel retailers.** The current fuel pricing formula was adopted in 2006 (Decree 63/2007) and reviewed in 2012 (Decree 45/2012). It is currently implemented by the National Directorate of Hydrocarbons and Fuel within MIREME. The formula estimates a retail price based on actual import costs, domestic margins, and desired tax levels (Table 1). The 2006 and 2012 Decrees specify an automatic pricing mechanism to adjust the retail price every six months, following a trigger (if the base price increases by more than 3 percent) or a desired change in tax levels. However, the automatic pricing mechanism has been abandoned since 2011, and the formula is used to estimate the compensation to fuel retailers.

7.   **The fuel price formula components are determined as follows (numbering in brackets refers to lines in Table 1):**

- **The CIF price [4] is the largest component in the structure, amounting to 50–70 percent of the final retail price depending on the fuel product.** It is computed as the weighted average of the last two months' actual CIFs, which correspond to the sum of FOB and importer margins

(following the winning bid quotation). This is then converted to local currency using the average exchange rate quoted by the bank syndicate which finances the fuel imports.

- **The price correction factor [5] is a complex element of the formula, and its calculation is not well understood by all concerned parties.** According to the 2012 Decree, it is intended to serve the purpose of backward correction for the difference between the "actual/verified" CIF import price and the "estimated" CIF price at the time of price setting, similar to the South Africa case.[4] However, the formula behind this factor is calculated as the difference between the current month CIF price and last month CIF price, plus interbank interest rate. This formula—as it is currently calculated—does not properly address the design concept behind the factor.

- **Direct import costs [6] consist of port fees, bank letter of guarantee, financing charges for the bank syndicate, IMOPETRO commission, and demurrage charges, among others.**

- **The import parity price [7] is calculated as the sum of the CIF price [4], the price correction factor [5], and direct import costs [6].**

- **The margins for distribution, domestic transport, and retail [9-11] are stipulated to be adjusted on a monthly basis following a dynamic formula with prices and exchange rate elements.** In practice, the margins have not been adjusted following the 2012 Decree, and were adjusted upwards on an ad-hoc basis in April 2014 (distribution) and April 2015 (retail).

- **Transport costs [11] included in the structure are designed to cover for domestic transport from the ports to various distributors' terminals within a geographical zone.** Outside this geographical zone, the retail price is allowed to be higher to cover for additional transport costs, and retail margins are allowed to increase to up to twice the formula retail margins.

- **Various taxes [8], [12], [13] are applied, including custom duties, excises and the standard VAT, with a taxation that favors kerosene and LPG over gasoline and diesel.** Custom duties are applied at the rate of 5 percent for all products, except LPG which is exempt. Similarly, a standard VAT rate of 17 percent applies on all fuels, with kerosene and LPG exempt. The fuel excise is a fixed amount per unit, with kerosene being exempt, and gasoline more heavily taxed than diesel.

- **The subsidy [16] is supposed to be the difference between the formula price [14] and the retail price [15].** However, the authorities' computation [17] is unclear and does not match [16].

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[4] In South Africa, a calculation is done on a daily basis for the difference between the actual reference base price and the estimated reference base price set at the beginning of the month to calculate the retail price. The daily under/over recovery is averaged for the month, multiplied by the volumes, then recorded in a cumulative recovery account called the "Slate Account". If the balance on the account becomes negative, a small state levy is introduced in the formula for the following month, otherwise the levy is set at zero.

Annex Table 1. Current Price Formula Structure

	Unit	Calculation	Gasoline [liter]		Kerosene [liter]		LPG [kg]		Diesel for retail [liter]		Diesel for megaprojects [liter]	
			2014	Aug-15	2014	Aug-15	2014	Aug-15	2014	Aug-15	2014	Aug-15
1 **CIF price, US$**	US$/ton	Weighted avg last 2 months CIF	1033	769	1021	629	1282	675	966	627	966	627
FOB price	US$/ton	Platts: 5-day avg	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Freight, insurance, etc.	US$/ton	Specified in tender contract	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2 Conversion factor	m3/ton	Weight to volume	0.748	0.739	0.792	0.781	1.00	1.00	0.834	0.828	0.834	0.828
3 Exchange rate	LC/US$	Not clear	31.52	39.40	31.52	39.40	31.52	40.73	31.52	39.40	31.52	39.40
4 **CIF price, LC**	LC/u	1*2*3/1000	24.35	22.37	25.48	19.35	40.41	27.49	25.40	20.47	25.40	20.47
5 Price correction factor	LC/u	4[M] - 4 [M-1] * (1+i%*30/365)	0.12	1.12	-0.03	-1.50	0.39	-25.70	0.02	-0.53	0.02	-0.53
6 Direct import costs 1/	LC/u	See footnote	1.54	1.71	1.57	1.64	5.48	6.86	1.57	1.67	1.57	1.67
7 **Import parity price, LC**	LC/u	4+5+6	26.01	25.21	27.02	19.50	46.28	8.65	27.00	21.61	27.00	21.61
8 Custom duties	LC/u	4*5%	1.22	1.12	1.27	0.97	0.00	0.00	1.27	1.02	1.27	1.02
9 Distributor margins	LC/u	fixed	3.50	3.69	3.50	3.69	6.60	6.60	3.50	3.69	3.50	3.69
10 Retailer margins	LC/u	fixed	2.15	3.00	2.15	3.00	4.65	4.65	2.15	3.00	0.00	0.00
11 Transport costs	LC/u	fixed	0.33	0.33	0.33	0.33	0.99	0.99	0.33	0.33	0.33	0.33
12 VAT	LC/u	(7+8+9+10+11)*17%	5.65	5.67	0.00	0.00	0.00	0.00	5.82	5.04	5.46	4.53
13 Fuel tax	LC/u	fixed	7.71	7.71	0.00	0.00	0.66	0.66	4.27	4.27	4.27	4.27
14 **Formula price**	LC/u	7+8+9+10+11+12+13	46.57	46.72	34.27	27.48	59.18	21.55	44.34	38.96	41.82	35.45
15 **Retail price**	LC/u	fixed	47.52	47.52	28.64	28.64	55.46	55.46	36.81	36.81	42.33	36.81
16 Subsidy per unit (formula)	LC/u	14-15	-1.0	-0.8	5.6	-1.2	3.7	-33.9	7.5	2.1	-0.5	-1.4
17 Subsidy per unit (authorities)	LC/u	Not clear	-0.9	-1.1	5.6	-0.2	n.a.	n.a.	6.4	3.1	-1.0	-0.7
Memo items:												
18 Net taxes (formula)	LC/u	8+12+13-16	15.5	15.3	-4.4	2.1	-3.1	34.6	3.8	8.2	11.5	11.2
19 Net taxes (authorities)	LC/u	8+12+13-17	15.5	15.6	-4.4	1.2	n.a.	n.a.	4.9	7.3	12.0	10.6
20 Consumption 2/	mil. of u		322	n.a.	28	n.a.	22	n.a.	917	n.a.	141	n.a.
21 Subsidy total (formula) 3/	mil. of LC		-280	n.a.	158	n.a.	81	n.a.	6,989	n.a.	-61	n.a.
22 Subsidy total (authorities) 3/	mil. of LC		-267	n.a.	160	n.a.	n.a.	n.a.	5,984	n.a.	-132	n.a.

Source: Authorities and Authors' estimates.

Note: LC: local currency, u: unit, which varies by fuel product.

1/ Includes: bank syndicate costs, administrative custom fees, demurrage, port handling fees, bank guarantee, offloading supervision, IMOPETRO commission, and acceptance expenses.

2/ Consumption for diesel is only available for the total (retail+ megaprojects). We assume that diesel consumption for megaprojects is 10% of (gasoline+kerosene+total diesel). The mission could not verify the retail price of diesel for megaprojects between Jan14-Mar15, it is assumed that no changes were made to the retail price until April 2015 when it dropped from 42.33 to 36.81.

3/ Note: This calculation may not exactly correspond to 17*18 in the annual column as 17 corresponds to the year average.

8.   **CIF prices in the formula have been inflated by inefficiencies in the fuel import structure.** In recent practice, inefficiencies have been reported in price fixing and quantity and quality control. For example, loading dates are not independently verified, and anecdotal evidence suggests multiple shipments arrived with a three-month prior loading date despite the 30-day limit set in the contract. The consequences of this are illustrated in Figure 2. Since the difference between CIF and FOB prices is a fixed charge in the contract, one would expect the difference to be relatively stable over the life of the contract. However, this difference increased for all fuel products between April 2014 and February 2015, even under the same contract. [5] This had significant consequences for size of the subsidy (cumulative losses of about US$70 million).

9.   **The underlying cause of the inflated CIFs lies in the incentive structure of the fuel import system itself.** IMOPETRO represents the distributors (not the government), with PETROMOC effectively controlling board decisions. In the current system, IMOPETRO and the distributors do not have sufficient incentive to limit import cost as the government compensates them. The CACL's

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[5] The contract winner of the July 2013 tender had its contract extended by 6 months, and then by another 10 months.

ability to supervise IMOPETRO and ensure transparency and competitiveness of the process is constrained by lack of independence, capacity, and enforcement power.

10.   **Other inefficiencies with consequences for the formula implementation and the size of subsidies include the bank syndicate costs, high demurrages, the exchange rate, and the conversion factors used.** Fees charged by the bank syndicate are higher than otherwise because of PETROMOC's credit risk. Moreover, there is lack of clarity as to what exchange rate the bank syndicate receives foreign currency from the central bank and what is the basis for the exchange rate included in the fuel price formula. Figure 3 illustrates that the relationship between the formula exchange rate and the central bank rate has not been steady (Figure 3). Offloading of the vessels has in some cases taken longer than expected causing high demurrage costs and supply shortages due to some distributors not securing the bank guarantee in time. Finally, the conversion rates have fluctuated over time, possibly due to issues with temperature misreporting and control.

11.   **Domestic margins appear comparable by international standards but a Mozambique-specific industry study is needed to determine their appropriate levels.** Total margins (distribution, international and domestic transport, and retail) for gasoline and diesel amounted to about US$0.25 per liter in June 2015.[6] Table 2 shows that these costs vary widely across countries. Therefore, a Mozambique-specific study on an industry-wide basis is needed to ensure a reasonable benchmark return on assets for distributors, to reflect appropriate retailers' costs, and as a result to incentivize investment in the sector.

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[6] These were much higher in April2014-February 2015 as discussed earlier due to inflated CIF prices.

Annex Figure 2. Gap between Formula CIF and International FOB, April 2014–February 2015

- FOB, avg last 2 months, US$/liter
- CIF, avg last 2 months, US$/liter
- Gap between CIF and FOB prices, US$/liter
- Gap between CIF and FOB prices multiplied by total fuel consumption, millions of US$ (RHS)
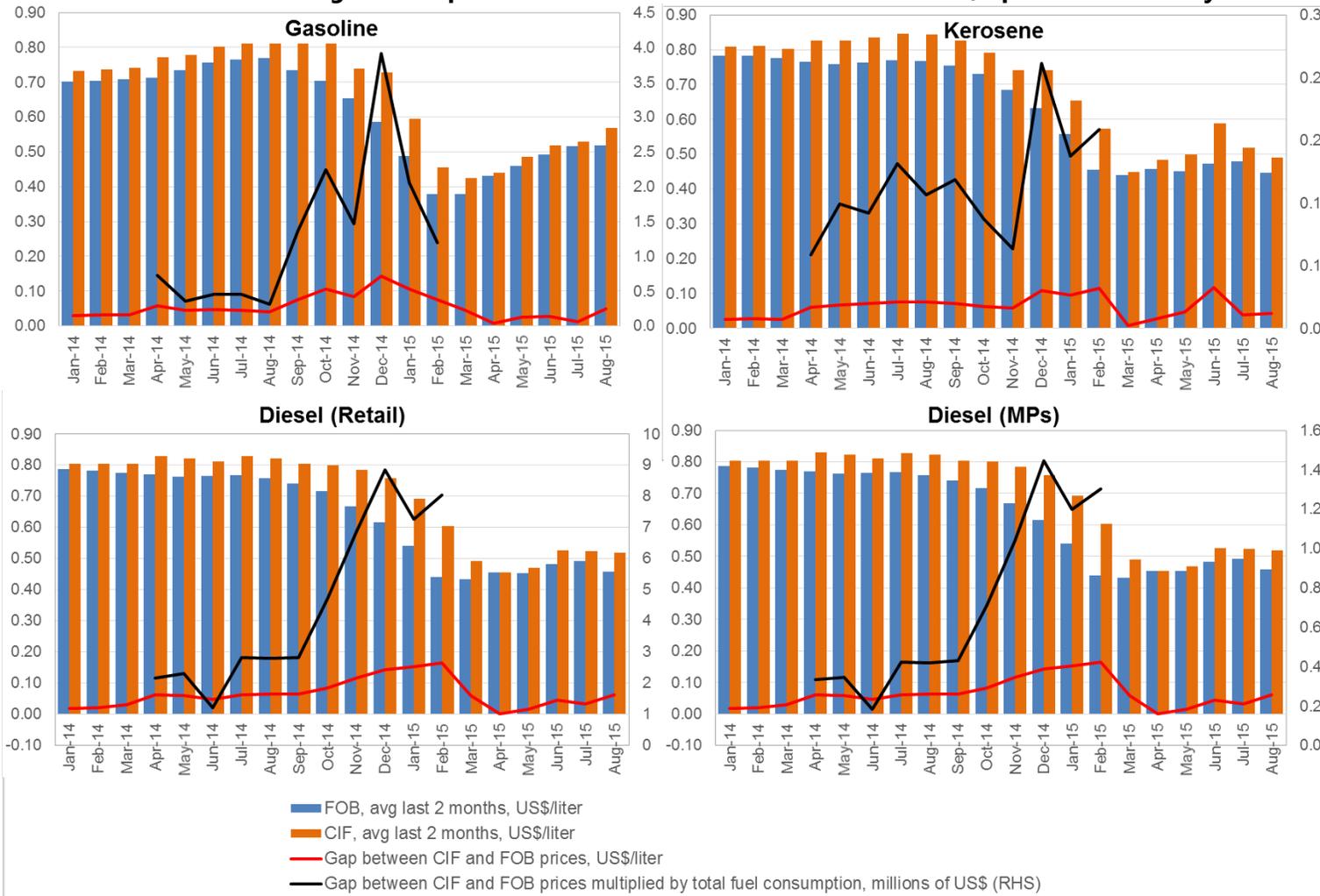
Sources: National Authorities, International Energy Agency, and Authors' calculations.

Note: Data for the FOB price is based on spot prices for NW Europe (Rotterdam) from the International Energy Agency (IEA). Data for the CIF price comes directly from the formula.

Annex Figure 3. Exchange Rate, Formula vs. Central Bank *(LC/$US)*
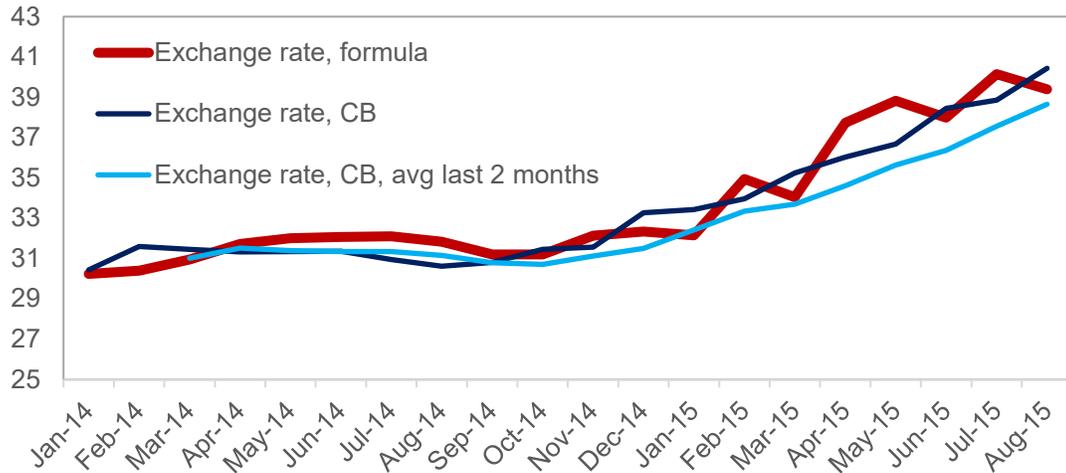
Source: National Authorities.

Annex Table 2. Margins and Costs, June 2015

(US$/liter)

	Mozambique	South Africa	OECD 1/		
			Avg	10 Percentile	90 Percentile
Gasoline	**0.25**		**0.13**	**0.05**	**0.22**
Distribution	0.09	0.05			
Retail	0.07	0.11			
Domestic transport	0.01	0.03			
Rest (international transport and import costs)	0.08	not available			
Diesel	**0.26**		**0.19**	**0.15**	**0.25**
Distribution	0.09	0.07			
Retail	0.07	not applicable			
Domestic transport	0.01	0.03			
Rest (international transport and import costs)	0.09	not available			

1/ Country-specific margins and costs are derived using data for 30 advanced and emerging countries on retail prices, VAT rates, excise tax rates and FOB prices.

Sources: National Authorities, South Africa Department of Energy Website, OECD, and Authors' calculations.

B. Fiscal Cost of Subsidies

12. **The cost of fuel subsidies has been substantial but it is projected to disappear in 2015 and 2016 on account of low oil prices**. Subsidies are estimated at 1.1 percent of GDP in 2014, with gasoline and diesel for megaprojects cross-subsidizing diesel for retail, LPG and kerosene (Table 3). Cumulative data for end-August 2015 indicates that the total subsidy is

negative, meaning that distributors owe the government.[7] Projections for 2015 and 2016 show that with current retail prices, the subsidy is expected to be negative. Nonetheless, there is risk that they will reemerge given the high volatility of oil prices. Less than full pass-through of increasing international prices has resulted in significant fuel revenue volatility (Figure 4).

13.   **Fuel subsidies have not been transparently recorded in the budget**. Subsidies paid in the last six years of $435 million represent 3.2 percent of 2014 GDP. These have typically been paid with one year or more delay. Currently, arrears are not recorded in the fiscal accounts as they accrue, they are only recorded with a lag when they are budgeted, and payments made to distributors beyond the budget allocation are not included in the fiscal accounts.[8]

Annex Table 3. Total Subsidy, 2014 Estimate and 2015–2016 Projections [1/]

| | 2014 | 2015 | | 2016 (Proj.) 4/ | |
		end-Aug (cumul.) 2/	Annual Proj. 3/	Scenario I (unchanged margins) 5/	Scenario II (higher margins) 6/
Total subsidy (millions of LC)	**5,825**	**-958**	**-3,041**	**-1,983**	**368**
Gasoline	-267	-1,382	-2,495	-2,705	-2,095
Kerosene	160	14	-30	-10	39
Diesel (Retail) 7/	5,984	681	152	1,075	2,566
Diesel (Megaprojects) 7/	-132	-358	-631	-374	-226
LPG 8/	81	86	-38	31	83
Memo Item:					
Total subsidy (% of GDP)	1.1	-0.16	-0.51	-0.29	0.05

Source: Authorities and Authors' estimates and projections.

1/ Subsidies are calculated on an accrual basis following the authorities' formula by fuel product.

2/ Consumption by fuel product is only available until end-June 2015. It is assumed that monthly consumption for the remainder of 2015 (July-December) follows the same pattern as that of 2014 (July-December).

3/ Monthly formula data (except consumption) is available until end-August 2015. For the remaining 4 months, we use the latest oil future growth rates. We assume that the exchange rate stays constant at the August level.

4/ The yearly projection for 2016 is made assuming oil prices and the exchange rate stay at the average 2015 level. Consumption is assumed to grow at the rate of real GDP growth.

5/ Under Scenario I, it is assumed that pump prices, and margins remain unchanged relative to August 2015 levels.

6/ Under Scenario II, it is assumed that pump prices remain unchanged relative to August 2015 levels, while margins are increased upwards. We have used distribution margins of 4.5 and retail margins of 3.5 per liter. These are only used on an illustrative basis. A serious industry study needs to be made to assess these levels.

7/ Consumption for diesel is only available for the total (retail+ megaprojects). We assume that diesel consumption for megaprojects is 10% of (gasoline+kerosene+total diesel). The mission could not verify the retail price of diesel for megaprojects between Jan14-Mar15, it is assumed that no changes were made to the retail price until April 2015 when it dropped from 42.33 to 36.81.

8/ The subsidy per kg of LPG is not directly available from the authorities. We take the subsidy per kg as calculated by the formula in these calculations.

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[7] Total subsidy corresponds to the difference between the formula and retail prices, times fuel consumption. Therefore, it includes not only the amounts recognized in the budget, but also subsidies financed with arrears.

[8] SISTAFE Law on public financial management states that expenditures are to be registered on an accrual basis.

Annex Figure 4. Retail Price Components and Net Tax Components by Type of Fuel, January 2014–August 2015
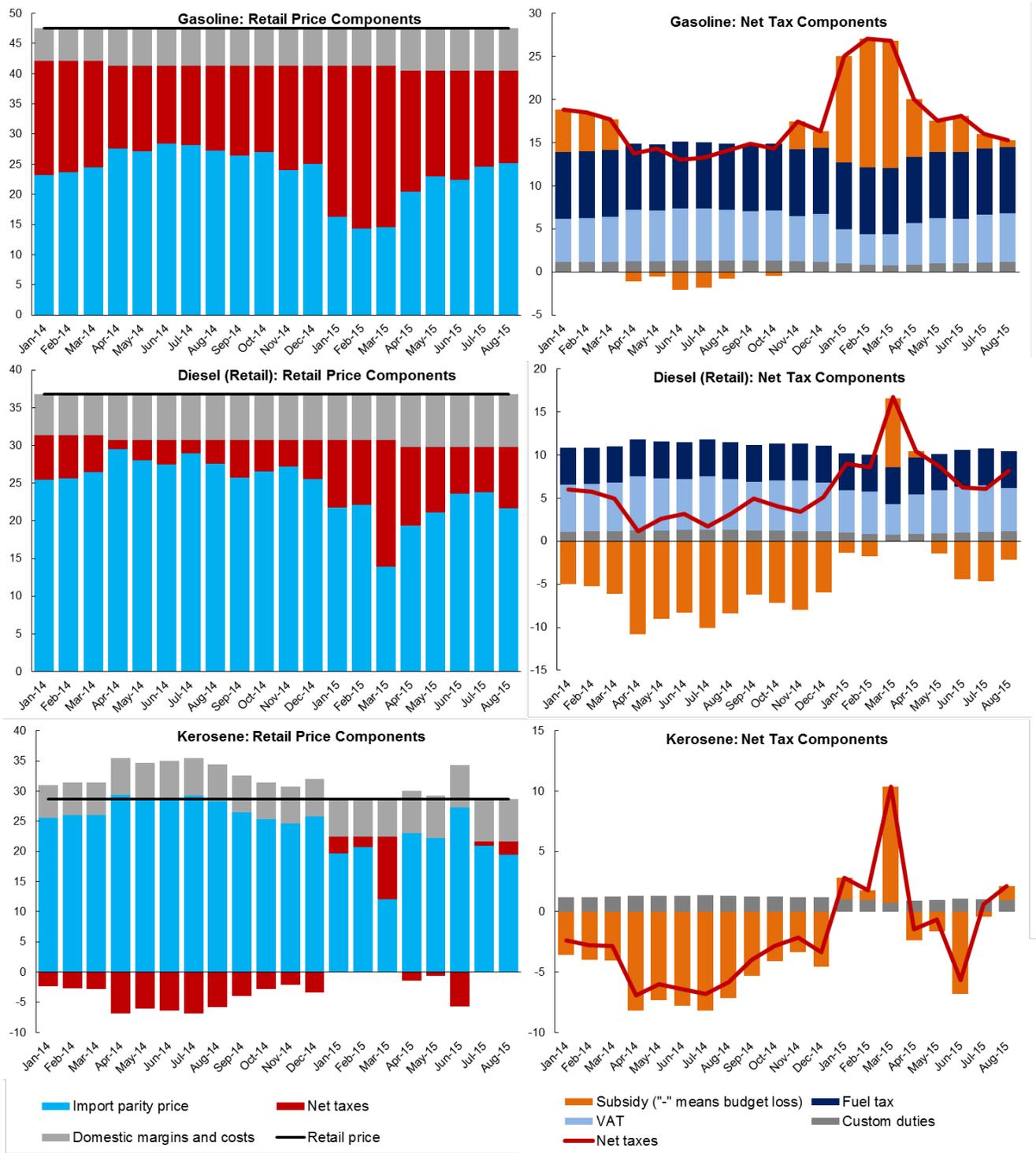
Sources: National Authorities and Authors' estimates.

14.   **Diesel and kerosene prices in Mozambique are relatively low compared to several of its neighbors.** A comparison for 2014 shows that retail diesel and kerosene prices in Mozambique were below those of most of its neighbors (Figure 5). The comparison for gasoline shows that retail prices in Mozambique are relatively high.

Annex Figure 5. Retail Fuel Prices, 2014
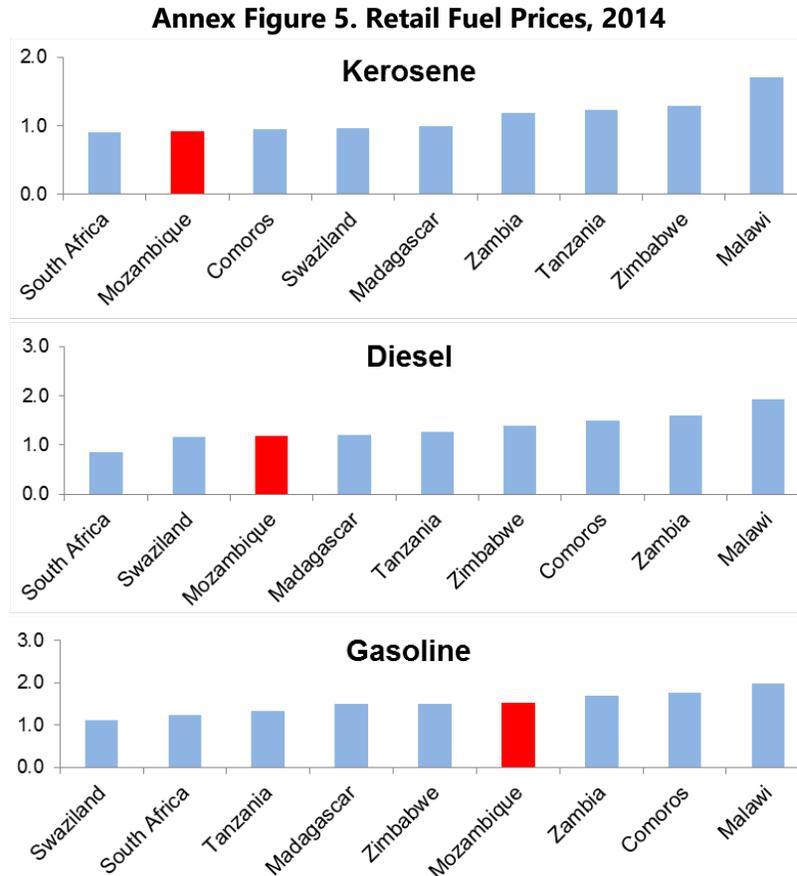
Source: IMF staff estimates.

15.   **The size of fuel subsidies is exacerbated by PETROMOC's financial difficulties**. PETROMOC's profit margins are low (the cost of sales was 90 percent of the sales in the last three years, on average), leaving little room to cover high financial costs, due both to elevated debt and high interest rates. PETROMOC has not always been able to meet its financial obligations vis-a-vis creditors on a timely basis. This impacts the risk premium charged by the bank syndicate to IMOPETRO, thereby raising the financing costs for the system as a whole.

C.   Recommendations

16.   **The current formula structure can be streamlined and made more transparent via reference pricing.** Reference pricing will also contribute to improving accountability, as the public would be able to follow and understand changes in retail fuel prices. Terms in the contract

between IMOPETRO and the fuel importer would need to be consistent with the reference prices in the formula (Table 4).

- **Import price.** In order to better align incentives to seek the lowest import cost possible, the CIF price in the formula should be based on a benchmark reference price rather than on actual import costs of IMOPETRO. The formula CIF can then be computed as last month's reference Platts price based on spot prices in nearby refining ports, plus a mark-up reflecting the cost of an efficient supplier. IMOPETRO and distributors would have a higher incentive to properly manage and enforce the contract, resulting in lower CIF prices. Country examples following this approach include Chile, Ghana, Kenya, Namibia, South Africa, Tanzania, and Zambia.

- **Exchange rate.** Use the average monthly interbank market exchange rate posted by the Central Bank, plus a fixed, small commission to account for possible transaction costs.[9]

- **Full breakdown of CIF prices.** The pricing structure should include more details such as the FOB reference price and the efficient mark-up set for the industry.

- **Conversion factor.** A pre-set conversion factor should be used that does not change over time.

- **Price correction factor.** The price correction factor should be eliminated as it unnecessarily complicates the formula and its calculation is not clearly understood by the different stakeholders involved. Also, its implementation is not consistent with its concept design.

- **Direct import costs.** The end-consumer should not have to pay for inefficiencies in the fuel import system or inefficiencies in the state owned enterprise. Therefore all the costs in the formula should be set based on levels consistent with efficient operations. For example, high demurrage costs incurred because of delays in one fuel distributor's ability to secure the bank guarantee should not be incorporated as higher direct import costs in the formula, but rather the distributors would have to bear the costs.

- **Margins.** A rigorous market study can be commissioned to determine the appropriate level of distribution and retail margins, financial costs, transportation costs and other pricing structure components necessary for operational efficiency in importing and distributing fuel. This study could also establish rules for updating these costs and margins periodically.

- **Subsidy.** The subsidy component should be explicitly reported and calculated as the difference between the formula price and the retail price. Once the move to an automatic

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[9] In the interim before the central bank unifies the exchange rate market, the formula should reflect the exchange rate at which the bank syndicate receives foreign currency from the central bank, plus a small pre-set commission.

pricing mechanism is re-instated, with or without smoothing, the subsidy component can be set to zero with any differentials achieved by adjusting the excise tax.

Annex Table 4. Proposed Formula Structure

		Immediately	Once reference pricing is in place
1 Import parity price, LC/u			
1.1	FOB price	Show clearly in formula. Monitor consistency with international oil price and contract.	Set based on an international reference spot price benchmark (for example of last month).
1.2	Freight, insurance, etc.	Show clearly in formula. Ensure consistency with contract.	Set assuming an efficient mark-up taking into account Mozambique specific costs.
1.3	Direct import costs	Show detailed components in formula.	Update if needed, based on efficient costs (deal with producer subsidies to PETROMOC outside the formula).
2 Margins, LC/u			Update based on a rigorous industry study.
2.1	Transport		
2.2	Distribution		
2.3	Retail		
3 Net taxes, LC/u			
3.1	Custom duties	Harmonize across fuel products in line with legislation.	
3.2	VAT	Harmonize across fuel products in line with legislation.	
3.3	Fuel tax 1/	Set this excise to achieve sequencing and equity objectives.	
3.4	Subsidy	Show clearly in formula, calculate difference as formula price - retail price.	
4 Retail pice, LC/u			
Memo items:			
	Exchange rate (LC/US$)		Use average monthly market exchange rate.
	Conversion factor	Set a standard fixed conversion factor.	
	Net taxes (LC)		

1/ Once the automatic fuel price mechanism (AFPM) is in place, this excise can be adjusted to achieve smoothing objectives.

17.   **Since the current fuel pricing formula directly reflects import costs, reducing inefficiencies in the fuel import system contributes to more efficient pricing.** There is no consensus as to which is the best, most profitable, or most efficient system of fuel imports. However there is consensus that any system in place should be fair and transparent, and promote the right incentives to generate normal returns for market participants, and benefits for the population at large.

18.   **Reform of the fuel import system could be considered to reduce inefficiencies.** The central tender system in place in Mozambique to manage the importation of fuel takes advantage of economies of scale and in principle should reduce the overall oil bill. However, implementation of the current system has created inefficiencies and in some instances lack of transparency. To better align incentives throughout the system and improve transparency and accountability, two options can be considered:

- **Option 1.** Use reference prices in the formula, keep the centralized tender system conditional on an improvement of PETROMOC's financial position. With a reference price, IMOPETRO and the fuel distributors would have a higher incentive to properly manage and enforce the

contract resulting in lower CIF prices. Reference pricing will contribute to greater accountability of IMOPETRO and the governance structure of the fuel import system, as it allows the public to track changes in retail fuel prices. However, reference pricing within a centralized tender system—where margins are set in line with levels consistent with efficient operations—requires an improvement in the financial position of PETROMOC to prevent inefficiencies in the state company from becoming a burden to the whole system. Countries that follow this approach of a centralized tender system of fuel imports combined with reference pricing include Kenya and Tanzania.

- **Option 2.** Use reference prices, move to a liberalized system of fuel imports. An assessment would be needed on the feasibility of liberalizing fuel imports through a licensing system. The licensing system would need to require that distributors adequately supply all zones of the country. A liberalized regime also requires strong government regulation and supervision to ensure a level playing field, avoid collusion among firms, and ensure quality and safety of fuel products. It would also require safeguards to ensure that the government is able to adequately collect taxes and some coordination to avoid disruptions at the port. As an initial step, consideration can be given to liberalizing fuel imports by megaprojects. Participation in IMOPETRO would be on a voluntary basis. As in option 1, reference pricing would ensure adequate incentives across the system. Countries that follow this approach of a liberalized system of fuel imports combined with reference pricing include Chile, Peru, Ghana, Madagascar, and South Africa.

19.   **Greater transparency with regard to the magnitude of subsidies is needed to improve fiscal management and accountability to the public.** In the interim before implementation of the automatic fuel price mechanism, the size of total fuel subsidies should be explicitly reported. Information on the formula, fuel revenues (including foregone revenues), and subsidies can be published on an external website (see for example Ghana and South Africa[10]). A projection exercise is needed to calculate the future size of subsidies (assuming a level of oil prices and exchange rates) and properly budget for them if needed. Risks related to fuel subsidies should be included in the fiscal risk statement. Delays in paying distributors should be eliminated, as they create cash flow constraints and additional financing costs to the distributors.

II.   ANNEX ON AUTOMATIC FUEL PRICING MECHANISM

A.   Objectives, Main Principles, and Policy Options

20.   **The adoption of an automatic fuel pricing mechanism (AFPM) is intended to achieve a number of objectives:**

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[10] For a good example of effective public dissemination of determinants of fuel prices, see the information regularly published on the Department of Energy Website of South Africa at: http://www.energy.gov.za/files/petroleum_frame.html

- **Ensure changes in international fuel prices eventually are fully reflected in domestic retail prices.** Higher retail prices for fuel provide greater incentives to economize fuel consumption, which is the most efficient approach to mitigating the adverse terms-of-trade impact on the economy. Low prices relative to neighboring countries can lead to cross-border smuggling.

- **Reduce the revenue loss and revenue volatility resulting from incomplete adjustment of retail prices to international price movements.** Revenue losses crowd out priority expenditure. In addition, excessive revenue volatility of creates cash management problems for the Treasury.

- **Depoliticize fuel price adjustments.** An AFPM will make it clearer that domestic price fluctuations reflect changes in international prices outside the control of the government.

21.   **The AFPM would entail setting retail fuel prices in line with the fuel price formula and determining the frequency of changes.** Retail prices could be changed every two weeks (Ghana, Tanzania), every month (Botswana, Kenya, Mauritius, South Africa), or every quarter (Namibia). A basic principle underlying the pricing mechanism is that differences between changes in import prices and retail prices should be fully reflected in changes in specific taxes (or explicit subsidies) in the price structure, and should not affect the derivation of the structure's other components.

22.   **The AFPM also requires a decision regarding the target taxes.** In general, the level and structure of fuel taxes should reflect the revenue requirements of the government as well as efficiency and equity objectives (Box 1).

23.   **Some smoothing of short-term retail price volatility may be desirable.** Governments may wish to avoid sharp increases in domestic prices in response to international price hikes, especially if the latter turn out to be temporary. Smoothing also avoids a "wait-and-see" approach to passing through rising international prices, which typically leads escalating fiscal costs. Examples of smoothing mechanisms include Chile, Colombia, Peru, and South Africa.

24.   **The choice of smoothing mechanism depends on the government's preferences in the tradeoff between fuel revenue volatility and retail price volatility (Box 2).** Options are:

- **Price band mechanisms:** This mechanism sets the maximum limit on the magnitude of retail price changes. Caps can be set as a proportion of the current retail price or in absolute amounts. If the implied price increase is below this threshold, then the full adjustment is allowed. For example, under a 5 percent price band, if the international price increases by 10 percent, the domestic retail price would increase by only 5 percent the first month, and by a further 5 percent the second month. Price bands are applied by Chile and Peru.

- **Moving average mechanisms:** This mechanism bases retail price adjustments on changes in the average of past import costs. For example, at the start of the month the retail price under

the formula is calculated using an average of past import costs (say, the average for the last three months). Retail prices then fully adjust to the smoothed formula import price. Mauritius is an example of a country with this mechanism.

25.   **Price bands and moving averages have different smoothing properties.** Price bands allow quick adjustment to current international price changes and are simple to explain and implement, but they may result in continuously declining tax levels if international prices exhibit sustained fast increases. In this case, additional "tax adjustment rules" may be warranted.[11] While moving average formulas can adjust more effectively to such sustained rapid international price increases, their reliance on historical international prices means they take longer to adjust, especially when averages are based on prices over many past months. Moreover, opposite movements in international and retail fuel prices could cause confusion among the public.

26.   **International experience shows that price stabilization funds (PSFs) do not shield the budget from large fiscal costs and risks.** Stabilization funds are intended to be permanent, self-correcting systems for avoiding sharp changes in domestic pump prices following increases in international prices. Cross-country experience (Cameroon, Chile, Colombia, Ethiopia, Malawi, Peru, and Thailand) has shown that stabilization funds do not prevent subsidies from becoming sizable if oil prices consistently rise and pump prices are excessively smoothed out. In addition, there is the risk that they may succumb to political pressures to immediately pass through decreases in international prices, resulting in a net cost for the state, as in Peru in 2009. PSF require an initial endowment and—to the extent that increases in international oil prices are not mean-reverting—their replenishment may require further government transfers. When the operations of a PSF are not fully integrated in the budget, they represent a contingent liability to the state and there may be issues of governance. Chile, for example, recently replaced its stabilization fund with an excise tax adjustment mechanism.

27.   **An independent agency can help depoliticize price setting.** An independent agency should have the capacity to implement the AFPM, continually monitor international prices, and update the other cost components of the formula. The agency can include representatives from the government, industry and civil society. Its independence can be strengthened by financial autonomy financed by a tax included in the pricing formula. The agency should produce regular reports for the public on its activities, and take appropriate steps to ensure good governance (transparency and audit requirements). A number of countries that successfully reformed subsidies for fuel products (Tanzania, Turkey) and electricity subsidies (Kenya) gave responsibility for reforming and regulating energy prices to an independent agency.

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[11] For an in-depth review of a supplementary rule preventing taxation levels from falling below a given threshold during a prolonged period, see Coady et al. (2012).

B. Recommendations

28.   **In Mozambique, establishing an automatic pricing mechanism (AFPM) for fuel products can help depoliticize fuel pricing.** Several steps would be needed:

- **Target revenues and combination of taxes**. The authorities will need to determine their target in terms of tax revenues from fuel. This will need to take into account price differences with neighboring countries to reduce smuggling. It is preferable for the rates of customs duties and the VAT applicable to be the standard rate and be the same for all petroleum products.[12] If differentiated tax rates across fuel products are desired for equity considerations, differentiated excise fuel tax rates can be used instead of the customs duty or VAT. For example, the rate could remain low for kerosene (used mainly by the poor, particularly in rural areas). However, if the consumption of kerosene is diverted significantly to other uses, for example, adulterating gasoline and diesel with kerosene, the fuel excise will have to be harmonized further.

- **Price smoothing.** A price smoothing mechanism may be warranted to avoid sudden and major changes in retail prices when applying the formula.[13] Smoothing based on price bands (of 3 or 5 percent) are an option to consider, as they provide a good balance between ensuring stability of oil revenue and reducing price volatility (Box 2). Fuel prices for megaprojects need not be smoothened. International experience shows that price stabilization funds do not shield the budget from large fiscal costs and risks, and therefore are not recommended.

- **Independent agency.** To ensure that fuel prices are adjusted on a regular basis without political interference, an independent agency should be created. This agency would be responsible for implementing the AFPM and updating the formula on a monthly basis. It would also be in charge of the process of updating the margins in the formula on an annual basis. It would need to publish information on the formula and its subcomponents on a monthly basis on a dedicated website. The agency should include representatives from different ministries, the industry, and civil society. To safeguard its independence, the agency would need to be endowed with suitable financial resources and dedicated staff. It is important to note that institutional structures can help independence, but this can only be guaranteed where the political commitment is strong enough to resist political pressures.

29.   **Over the longer term, the government should aim to fully liberalize the pricing of petroleum products.** More liberalized regimes—where prices are determined by private sector

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[12] The reintroduction of the standard VAT and customs rate for kerosene would increase the formula price relative to the fixed retail price. In the short term, a subsidy may be needed as an offset to this tax increase.

[13] A greater degree of smoothing could also be applied to kerosene. However, there is a limit to how low one can tax kerosene without severely distorting fuel consumption patterns and fuel markets.

suppliers and move freely with international prices—tend to be more robust to the reintroduction of subsidies than automatic pricing mechanisms. Under a liberalized regime, the role of the government is to ensure that fuel markets are competitive and that there is free entry and exit from the sector. A well-functioning social safety net should be in place before countries liberalize to ensure that low-income groups can be protected from future price increases and thus avoid public pressure to reintroduce subsidies. Successful implementation of an automatic pricing mechanism can facilitate the transition to a liberalized pricing regime by getting the public used to frequent changes in domestic energy prices and building up private suppliers' confidence that the government will not return to subsidized pricing. Philippines and Turkey implemented an AFPM during their transition to liberalized fuel pricing. India liberalized gasoline and diesel prices in 2010 and 2014, respectively.

Box 1. The Level and Structure of Fuel Taxes

In general, the level and structure of fuel taxes should reflect the revenue requirement of the government, as well as efficiency and equity objectives.

Revenue requirements: Average fuel product taxes should reflect the total revenue requirements of the government and the importance of indirect taxes in total revenues. The higher the revenue requirements from indirect taxes, the higher should be the tax rate on all goods and services, including fuels.

Efficiency of revenue generation: Since fuel taxation is seen as a relatively efficient source of revenue, due to fuel demand being relatively insensitive to price, the desirable average fuel tax is typically thought to be above the average tax on other goods and services. This is reinforced by the negative externalities, such as environmental pollution and traffic congestion, associated with fuel consumption. The structure of fuel taxes should also minimize the distortion in the pattern of consumption across fuel products. Therefore, to the extent different fuel products are thought to be very close substitutes, especially over the long run, an efficient structure of fuel taxes should involve little differentiation in tax rates across fuels. The argument for uniformity of fuel taxes is often thought to be relatively strong for diesel and kerosene since these are seen as being especially close substitutes.

Efficiency of fuel supply: The cost components in the price structure should provide the proper incentives to suppliers and distributors to operate efficiently and invest.

Income distribution: Concerns for income distribution mean that taxes on fuels for which the poorest households have a higher share in total consumption should be relatively low. Typically, kerosene is seen as being relatively more important for poor households and gasoline for non-poor households, and taxes could be kept relatively low on this product, while limiting the risks of adulteration.

Box 2. Choice of Pricing Mechanism

An illustrative analysis can clarify the implications of alternative automatic adjustment mechanisms on retail fuel prices and taxes. These mechanisms are compared to illustrative adhoc retail price adjustments and to a full pass-through without smoothing.

- Compared to the full pass-through scenario, smoothing mechanisms can reduce the volatility of retail prices, and in particular prevents full pass-through of temporary sharp increases in prices. In addition, the smoothing mechanism also avoids long delays in price adjustment.
- By reducing retail price instability, smoothing mechanisms increase tax revenue instability relative to the full-pass-through scenario, albeit to a much lesser extent than the level observed in the historical scenario based on discretionary adjustments.

The choice of a smoothing mechanism involves a tradeoff between retail price volatility and revenue volatility. From a political economy and social perspective, pricing mechanisms that avoid large retail price increases, especially when import cost increases turn out to be temporary, are desirable. From a fiscal management perspective, mechanisms that avoid large decreases in tax levels may also be desirable. Taking into consideration all these objectives, simple price bands can achieve the desired trade-offs better than moving averages.

Figure A. Retail prices under alternative pricing mechanisms *(LC/liter)*
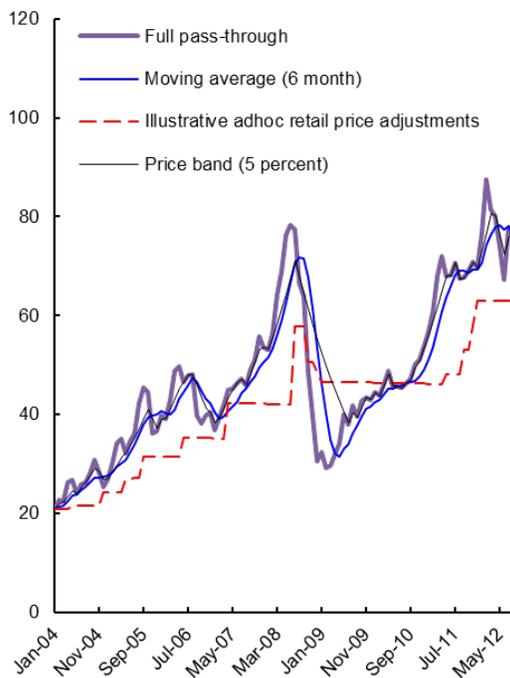
Figure B. Net taxes under alternative pricing mechanisms *(LC/liter)*
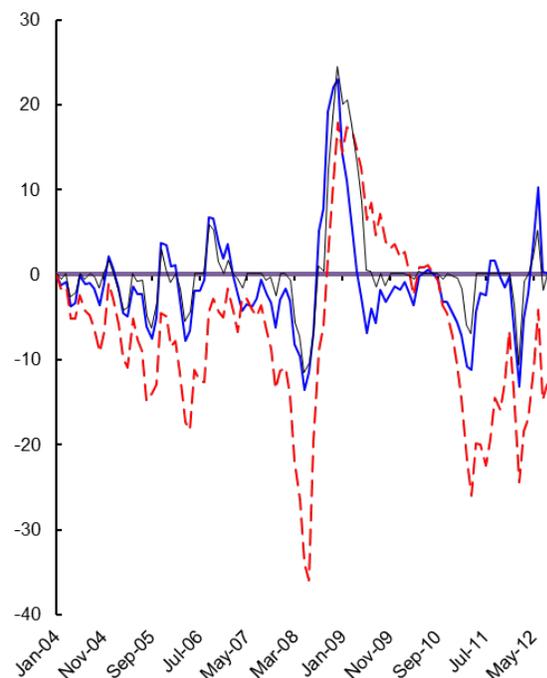
III. ANNEX ON SOCIAL IMPACT AND MITIGATING MEASURES OF FUEL SUBSIDY REFORM

30.   **Mozambique is a country with large share of poor and vulnerable population.**
Poverty is prevalent. Over half of the population lives below the national poverty line of about
US$0.59 per day. Approximately 40 percent of the population is below the food poverty line
(population that consumes less than 2150 calories per day). Consumption levels for households
in income quintiles 1 to 4 are comparable (Figure 6). Among the poorest 40 percent of
households, roughly one-third lives in urban areas (Figure 7).

Annex Figure 6. Share of Per Capita Consumption

(Percent of total consumption)
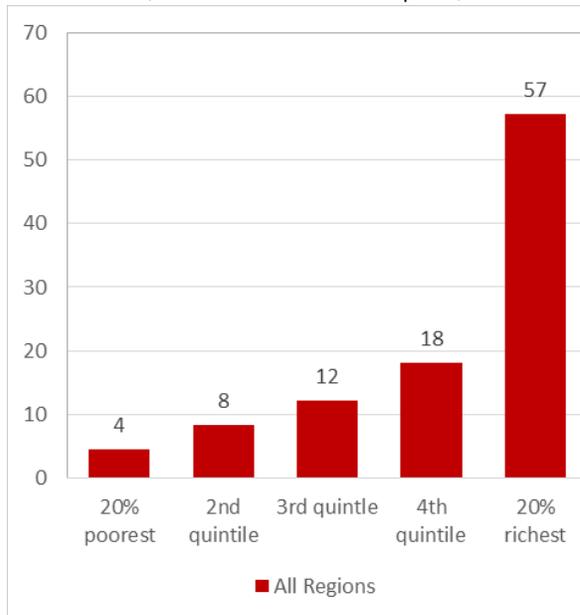
**Annex Figure 7. Share of Urban and Rural Households**

(Percent of total households)
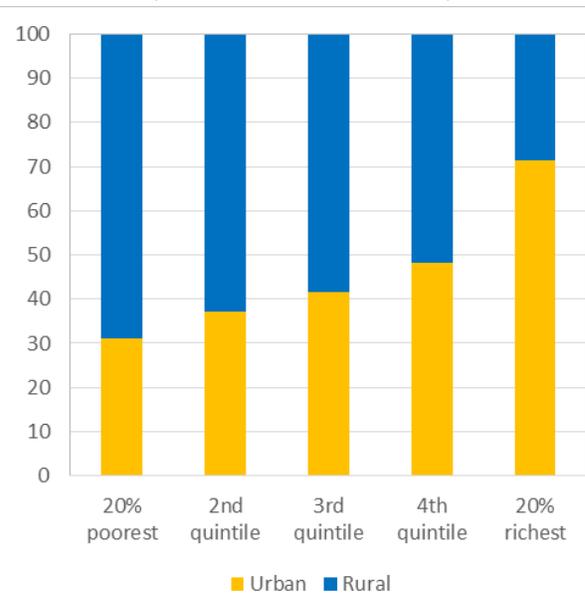
Sources: INE 2008 Household Survey, Arndt et al. (2012), and IMF staff estimates.
Note: Quintiles are based on national consumption per capita.

A.   Distributional Impact of Fuel Subsidy Reform[14]

31.   **Poor households spend a significant share of their income on consumption of fuel
products, and would therefore be directly affected if fuel prices increase (Figure 8).** Fuel
consumption among the poorest households in both urban and rural areas is about 3 percent of
their income. Consumption of the bottom 60 percent households is mainly concentrated in
kerosene, with a tiny share of their budget devoted to LPG and gasoline. The bulk of LPG,
gasoline and diesel is consumed by the richest 20 percent of households.

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[14] The distributional analysis is done using data from the 2008 household survey by the National Statistics
Institute and the 2007 social accounting matrix provided in Arndt et al. (2012).

Annex Figure 8. Share of Household Income Spent on Fuel Products

(Percent of total consumption)
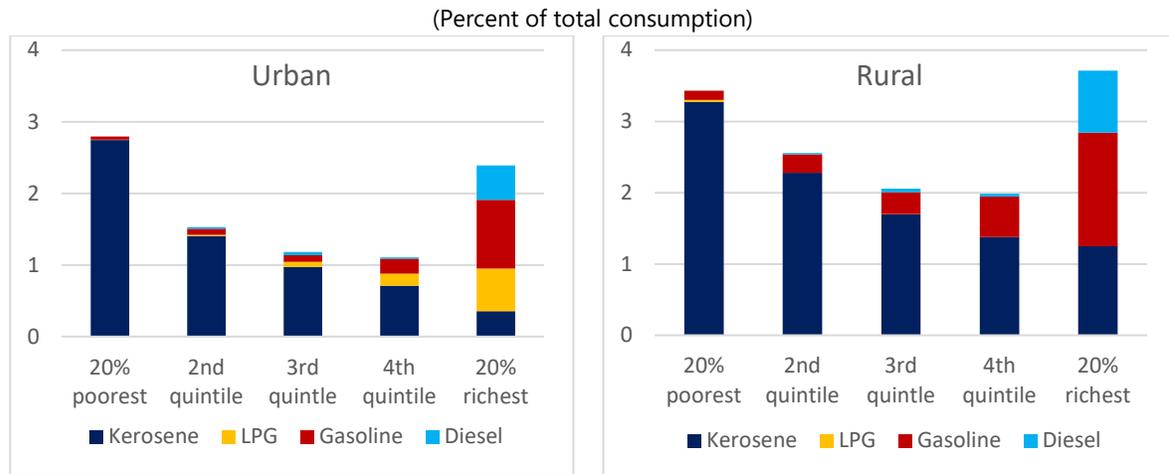
Sources: INE 2008 Household Survey, and IMF staff estimates.

32.   **Households are also indirectly affected by fuel prices through their impact on the production cost of goods and services in households' consumption basket.** Two important items are food and transportation (Figure 9). Food occupies the largest portion of households' budgets, and thus a small price increase in food could result in sizable burden on the household budget. The transportation sector is fuel-intensive, which makes its cost relatively sensitive to fuel price changes. Mozambique's production structure implies that a 20 percent increase in fuel prices will result in a 7 percent increase in the transportation cost. Transportation price increases would severely impact the poor or near-poor households, especially those in urban areas.[15]

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[15] Transportation prices in Mozambique are regulated. Anecdotal evidence indicates that providers adjust the quality of their services, including by reducing the length of the route and reducing safety standards, when they are not able to pass on higher costs to consumers.

Annex Figure 9. Budget Share of Food and Transport

(Percent of total consumption)
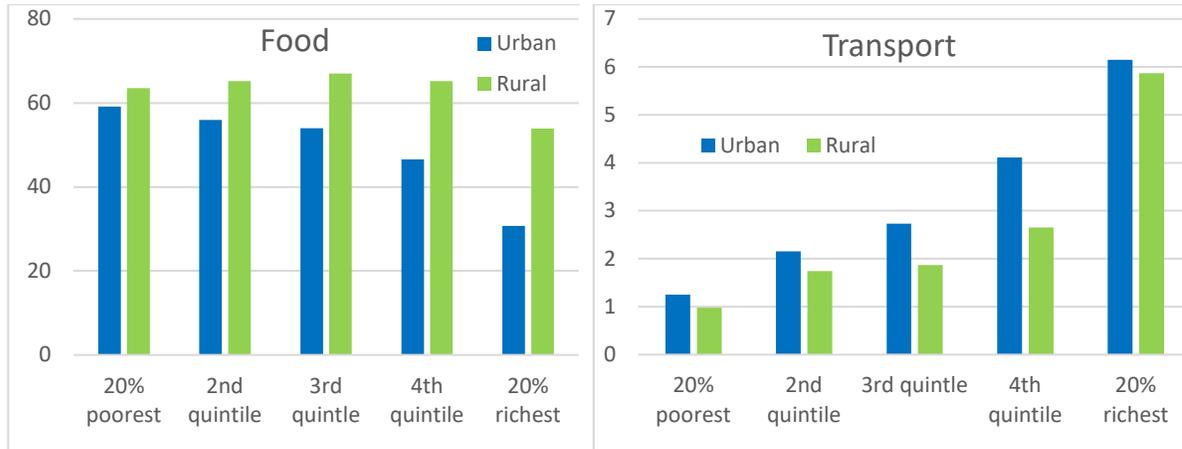
Source: INE 2008 Household Survey, Arndt et al. (2012), and IMF staff estimates.

33. **Both urban and rural households will suffer welfare losses if domestic fuel prices were to increase significantly.** On average, an illustrative fuel price increase of 20 percent is estimated to result in a 2 percent decrease in the real income for households in the bottom 40 percent of the welfare distribution (Figure 10).[16] The bulk of the welfare loss comes indirectly, from reduction in basic good consumption such as food and clothing, as well as basic service usage such as transportation. Urban households are moderately more affected by transportation compared with rural households.

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[16] Rather than using the price increase needed to eliminate subsidies (which in August was relatively low: less than 6 percent for retail diesel and negative for other fuels), a 20 percent fuel price increase is used to allow for comparability with previous assessments. The impact of fuel prices has increased over time. Based on the 2003 household survey, World Bank (2008) found that a 20 percent increase in fuel prices is roughly equivalent to reduction of 1 percent in household income across the population. This analysis could potentially show an even higher impact with data from the 2015 household survey, which was not available at the time of this report.

Annex Figure 10. Distribution of Welfare Impact

(Percent of household consumption)
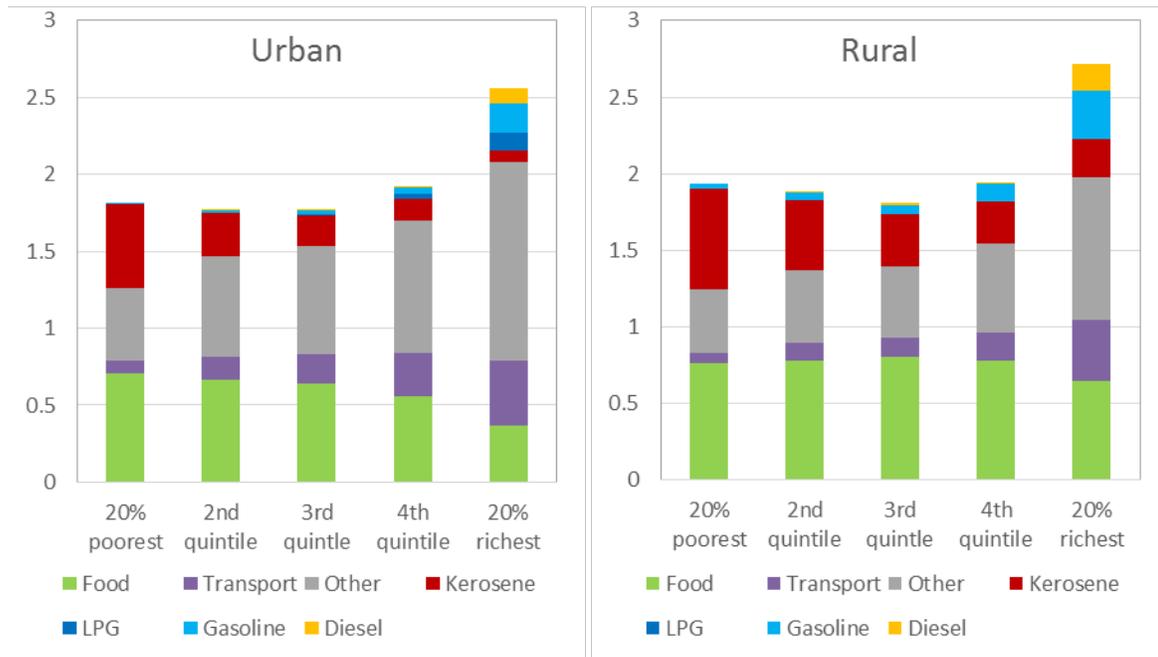
Source: INE 2008 Household Survey, Arndt et al. (2012), and IMF staff estimates.
Note: A 20 percent fuel price increase is assumed for all four fuel products. As of August 2015 (Annex Table 1), this corresponds to a per liter increase of US$0.15 for kerosene, US$0.24 for gasoline, and US$0.19 for diesel, and a per kilogram increase of US$0.28 for LPG. Household demand for fuel products and other goods and services is assumed to be inelastic.

34.   **Fuel subsidies are badly targeted and benefit disproportionately well-off households.** In Mozambique, almost two-thirds of the total subsidy benefit is received by households in the highest 20 percent of the welfare distribution (Table 5). Half of the total subsidy accrues to the urban rich. Meanwhile, households in the lowest 20 percent of the distribution receives less than 5 percent of the subsidy benefit. Even in the case of kerosene, the top two quintiles obtain almost the same share of subsidy (36.4 percent) as the poorest 40 percent households (41.8 percent). The rural poor benefit relatively more from subsidies compared with the urban poor, with 7.7 percent and 4.2 percent received by the bottom two quintiles in rural and urban households, respectively. This finding is broadly consistent with international experience (Coady and others, 2015), though in Mozambique the unevenness between the richest 20 percent and the rest is more pronounced because the richest consume almost all fuel products apart from kerosene.

Annex Table 5. Total Subsidy Share

(Percent)

	Kerosene	LPG	Gasoline	Diesel	All Fuel
URBAN					
20% poorest	5.6	0.0	1.0	1.2	1.4
2nd quintile	6.0	0.3	2.4	2.9	2.9
3rd quintle	6.0	1.7	3.9	4.9	4.5
4th quintile	6.5	7.2	7.7	8.8	8.3
20% richest	6.6	89.9	50.3	49.7	48.2
Total Urban	**30.7**	**99.1**	**65.3**	**67.5**	**65.3**
RURAL					
20% poorest	14.4	0.3	2.1	2.5	3.0
2nd quintile	15.8	0.0	3.7	4.2	4.6
3rd quintle	15.8	0.2	5.1	5.7	6.0
4th quintile	14.2	0.0	6.4	6.5	6.7
20% richest	9.2	0.4	17.4	13.7	14.3
Total Rural	**69.3**	**0.9**	**34.7**	**32.5**	**34.7**
Total National	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: INE 2008 Household Survey, Arndt et al. (2012), and IMF staff estimates.
Note: Estimates are based on a scenario where the 20 percent fuel price increase
is fully subsidized by the government.

35.   **Fuel subsidies are a very expensive way to protect the poor (Table 6).** As illustration, approximately MT$5 are needed for every MT$1 provided through fuel subsidies to the bottom 80 percent of households (the poor and near-poor). Even if the subsidy is targeted at kerosene, MT$1 subsidy requires MT$4 and MT$2 in the urban and rural areas, respectively.

Annex Table 6. Cost of Providing MT$1 through Fuel Subsidy to Households in the Lower 80 percent of the Income Distribution

	Kerosene	LPG	Gasoline	Diesel	All Fuel
Urban	4	11	7	6	6
Rural	2	189	6	5	5

Source: INE 2008 Household Survey, Arndt et al. (2012), and IMF staff estimates.
Note: The cost of reaching targeted populations through fuel subsidies is calculated as
the reciprocal of the subsidy share.

B.   Social Assistance Programs in Mozambique

36.   **In 2009, the Government of Mozambique launched the National Basic Social Security Strategy (Estratégia Nacional de Segurança Social Basica or ENSSB).** The ENSSB has four elements: (i) Basic Social Action, which includes safety net and social assistance programs,

including social transfers; (ii) Educational Social Action, including social protection programs seeking to increase school enrollment and attendance; (iii) Health Social Action, involving nutrition and other programs; and (iv) Productive Social Action, to help the poor to rise out of poverty by helping them to access income-generating activities including public works schemes. An ENSSB for 2015–2019 is being finalized.

37.   **The government aims at establishing a comprehensive social safety net to lend support to the extremely poor and vulnerable households.** Three core cash transfer (CT) programs are in place: (i) The Basic Social Subsidy Program (PSSB), a social pension for poor households without adults able to work (elderly, disabled and chronically ill); (ii) the Productive Social Action Program (PASP), a labor intensive public works program for poor households with adults able to work (which currently has larger coverage in rural than in urban areas), and (iii) the Direct Social Support Program (PASD), a temporary support program for households experiencing idiosyncratic shocks affecting their consumption and income. These cash transfer programs are complemented by other social measures to protect the vulnerable groups, such as price subsidy to bread flour, subsidies to public transportation, and school meals programs.

38.   **With the support of development partners, the government has started to strengthen the social safety net.** Spending on CT programs reached 0.5 percent of GDP in 2014. In 2014, the major programs covered 15 percent of the poor population, equivalent to 8 percent of the entire population (ILO and UNICEF, 2014). The cash transfer under the PSSB in 2014 was set at MT$550 (about US$18) per month for a 5 member household (MT$280 for a 1 member household). The authorities are putting in place a unified registry and payment system that consolidates the existing social protection system. They are also building capacity for the implementation, monitoring and evaluation of the labor-intensive Public Work Program.

39.   **Transportation subsidies are provided to service operators to maintain a fixed transport fare.** Only a fraction of the private minibuses (one of the major transport service providers) receives such subsidies as registration with the tax authorities is a requirement.[17] High informality in the transport sector adds difficulty in properly targeting the subsidy. The fixed and inadequate fare has dampened incentives to invest in the sector and improve the service quality.

C.   Recommendations

40.   **A decision on the size of the mitigating measures needs to balance the trade-off between fiscal savings, administrative capacity, and the need to achieve public support for the reform.** Box 3 provides cross-country examples of social programs implemented in the context of fuel subsidy reform. A reduction in fuel subsidies in Mozambique would, in principle, create space to increase spending on social programs.

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[17] The transport subsidy represents 0.05 percent of GDP.

41.   **To better safeguard the poor from increasing fuel prices, the government should enlarge the coverage of existing CT system with moderate generosity.** CT programs do not distort households' consumption pattern, nor firms' production decisions, and thus are the preferable instrument to assist the poor and vulnerable. World Bank (2015) indicates that cash transfers equivalent to half of the median consumption of the poor is able to cover 98 percent of people below the food poverty line (87 percent of the total population) and reduce poverty headcount ratio by 4 percentage points. Such a program would entail a fiscal cost of 1 percent of GDP. This is comparable to an average of 1.1 percent of GDP dedicated to social transfer programs across developing countries (ILO and UNICEF, 2014). Cash transfers with a conditional component in order to promote specific behaviors could also be considered.

42.   **Other programs within the authorities' ENSSB can be scaled up in the short term, to complement CT until they are sufficiently developed.** This includes expanding current health and education programs, along with enhancing the quality of their services. Focus should be given to programs that can be expanded quickly with possibly some improvements in targeting.

43.   **Consideration could be given to scaling up programs targeted at vulnerable households in urban areas.** This segment of the population is highly exposed to price increases and receives relatively less coverage than rural areas under the existing social safety net (for example under the PASP). Identifying programs for this population will require a mapping of poverty in urban areas, and an assessment of feasibility and effectiveness of possible programs. Consideration can be given to accelerating the expansion of cash transfer programs targeted to the urban poor, for example the public works program PASP.

44.   **Transportation subsidies could be considered, to reduce the possible negative impact of higher prices on access to education, health services, and employment opportunities.** For example, fuel subsidy reform in Ghana and Nigeria included transportation subsidies among the mitigating measures.[18] However, caution is needed to manage their fiscal cost and they would need to be carefully designed to ensure adequate targeting. Also, transportation subsidies should be part of an integrated medium-term plan for improving the mass urban transport system.

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[18] As part of fuel subsidy reform in some countries, measures related to the transportation sector have been adopted. Gabon and Nigeria expanded public transportation. Philippines provided subsidized loans to help convert public transport engines, so they could rely on less costly LPG.

Box 3. Social Programs – Country Experience

This box provide examples from countries that experienced large increase in petroleum product prices and actively utilize social protection measures to mitigate the impact of higher fuel prices on the vulnerable. Both cash transfers and non-CT policies are covered.

Brazil gradually liberalized prices for all fuel products since early 2000s

> A conditional cash transfers programs was implemented in 2001. Gas voucher for subsidized LPG targeting low-income households was also introduced in the same year, with eligibility based on a means test. Both programs were consolidated under a new national flagship conditional cash transfer program, the Bolsa Familia, in 2003.

Gabon increased gasoline and diesel prices by 26 percent in March 2007

> The cash payments to the poor by National Social Guarantee Fund were resumed, along with a new and improved census of lower income households. Existing assistance to single mothers was increased. Electricity and water were subsidized up to a limited quantity for low-usage households. School enrollment fees in public school were waivered, and school text books were given at no charge to all primary school pupils. Investment related to expansion of rural health services, electrification and drinking water supply were accelerated. Mass public transport network in Libreville was expanded.

Ghana deregulated petroleum product pricing in 2005

> The government introduced a number of programs aimed at mitigating the effect on the most vulnerable, including the elimination of fees for state-run primary and secondary schools; an increase in public-transport buses; a price ceiling on public-transport fares; more funding for health care in poor areas; an increase in the minimum wage; and investment in electrification in rural areas.

Indonesia made several attempts to reduce the fuel subsidy (with partial success)

> Unconditional cash transfers targeted at poor households were introduced along with 2005 reform, which had a decent coverage, 35 percent of the population, and were believed to have helped reducing the intensity of protests in 2005. Other measures included the health insurance for the poor program, school operational assistance program, and expanded rural infrastructure support project. The government also made an effort to covert households and small businesses from kerosene to the less subsidized LPG which also imposed less negative externality.

Iran started reforming the fuel subsidy since 2010

> About 80 percent of the revenue from price increases was redistributed to households as bi-monthly cash transfers, which were open to all citizens, though the richest households were discouraged from applying. The remaining revenue was to be set aside to provide support for enterprise restructuring with a view of reducing their energy intensity.

Jordan eliminated fuel subsidies in November 2012, with the exception of LPG, which retains a small subsidy

> A monthly fuel price adjustment mechanism was adopted in January 2013. A cash transfer system was introduced for families below a certain income threshold (70 percent of the population) if oil prices are above US$100. The transfer amounts to about US$100 per person per year and is capped at a maximum of six family members. The first installment of the transfer was disbursed in the last few weeks of 2012 in parallel with the increase in fuel prices.

Niger started implementing the fuel subsidy reform in 2011, whose timing overlapped with domestic oil production

> A direct subsidy to the transport sector was introduced following negotiations with the civil society and private sector operators, as the sector was the most affected by the increase and the poorer segments of the population were the ones that used more public transport. Social spending with particular emphasis on investment in education was also increased. The public wage bill was increased to accommodate the recruitment of 4,000 teachers in early 2012.

Nigeria government attempted fuel subsidy removal in 2011 (Reform was not successful)

> The conditional CT program for pregnant women in rural areas was expanded. Facilities at clinics were upgraded. The government also provided temporary employment to youth and women from the poorest populations in environmental projects and maintaining education and health facilities. Vocational training centers were established across the country to help tackle the youth unemployment. The government also planned to increase mass transit availability.

Philippines during the food and fuel crisis in mid-2008

> The government launched a package of pro-poor spending programs that were financed by windfall VAT revenue from high oil prices. The policy package included electricity subsidies for indigent families, college scholarships for low-income students, and subsidized loans to convert engines of public transportation to less costly LPGs. In addition, subsidized rice was distributed to low-income families. There was also a conditional cash transfer program being conducted in late 2007 and scaled up in 2008.

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