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A Benchmark of Implementing Energy Subsidy Reforms: Case Studies on Brazil, Chile, Indonesia, Turkey and Morocco

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Abstract: ***Since 2014, more than 32 countries which include 17 oil-producing countries proceeded to reform their subsidy systems especially in relation to energy subsidies. These reforms took different forms, as some opted to readjust/review prices, some reformed their fiscal framework, while others chose the complete liberalization of petroleum products prices. This global tendency was triggered by the lack of effectiveness of most of these subsidy systems, in a context of severe price volatility on international markets. As huge budgets were allocated to compensate staple products, in order to, protect low income social classes' purchasing power, the achievement of the targeted objectives was costing very costly. As a result, most countries took the initiative to change their subsidy policy and look for more effective ways to channel financial support to the said social classes. Most of the countries who engaged in these reforms replaced subsidies by direct financial aids distributed based on social criteria to vulnerable social classes (Bolsa familia (Brazil), Chile solidario (Chile)…etc) or by transferring funds to vital social sectors like health and education (Mexico, Columbia… etc). Using different approaches (geographic targeting, income…etc) these countries succeeded to identify the most worthy of these financial aid transfers. Many accompanying measures were adopted by each country following the specificities related to their different economic and social contexts. In the case of Morocco, there were no remarkable social measures accompanying the removal of LPP's subsidies removal, despite governmental reports stating social programs like Tayssir (primary education program), or the program for direct assistance to widowed women in precarious situations with orphaned children (granting 350 MAD per child monthly with a ceiling of 1050 MAD for a single household) as measures that were taken to improve social conditions for deprived social classes. It is hard to imagine how these measures could be effective if a sudden price jump occurs on international markets and local prices start soaring. Nevertheless, we'll briefly detail both programs alongside other benchmarks for accompanying measures that were taken in countries like Brazil, Chili, Mexico and Indonesia.***

Keywords: Subsidy policy, reform, energy subsidies

1. Introduction

Many years of enduring the expensive allocations to subsidy systems, proved that it might not be the best way to reach out to the poor and improve their living conditions. The impacts of such expensive systems are far from the pursued objectives, a reality that made most countries abandon these subsidies and replace them with more effective social welfare programs for the benefit of the most deprived social classes.

In order to assess the Moroccan experience regarding the subsidy reforms carried out in the past few years, we must compare it to other countries' experiences in the matter, and see if there are any lessons to learn. For this purpose, we chose the case studies of 5 countries including ours: Brazil, Chile, Indonesia, Turkey and Morocco.

2. Results and Discussion

Brazil:

In a period of a global economic recession in the 1980s, the weakened Brazilian economy was forced to liberalize numerous sectors, of course the energy sector wasn't an exception due to the heavy expenditures that crude oil generated. At the time, a situation of a dominant monopoly (by the Petrobras: a state-owned oil company) was the case in terms of refinement and importation of liquid petroleum products, other companies were only able to take part in the distribution process (a similar situation exists in Morocco as the company SAMIR is in total control of refining liquid petroleum products).

LPP prices were regulated by the government to mitigate the frequent and brutal price fluctuation of these products through the allocation of subsidies. This system's mechanism was basically based on transferring funds to the company in charge (Petrobas) when prices go upwards, and proportionally reduce these subsidies when prices go downwards. The domestic LPP prices in Brazil were always fixed below import-parity costs. It wasn't until the first oil shock aftermath in 1972 that first serious deficits manifested.

Brazil finally proceeded to the liberalization of LPP refining and importation prices in 1995. Nevertheless, the process took place progressively as gasoline subsidies were the first to be removed in 1996, then Liquefied Petroleum Gas (LPG) followed in 1998 and finally diesel was next in 2001. Although prices were completely liberalized by 2001, the State always supervised and influenced the pricing levels via taxes and others instruments to attenuate inflation rates.

Given the difficult social context, as poverty, illiteracy and social inequalities levels were very high, Brazil was forced to adopt a new social policy to improve the living conditions of the poor in a global national framework of economic and social development. In 2001, several social welfare programs were put in place to provide financial aid to poor Brazilian families. The government first granted "gasoline purchase vouchers" to targeted vulnerable households to ease their access to petroleum products after liberalizing prices, in addition, another social program called "Bolsa escola" was implemented in the same year to ensure poor families' children attendance to school through direct cash transfers to the said families. In 2003, both programs were merged into one program known as "Bolsa familia", reaching 11 million families, and more than 46 million people, a major portion of the country's low-income population. The World Bank describes it as "*It is among the world's best targeted programs, because it reaches those who really need it. Ninety-four percent of the funds reach the poorest 40 percent of the population. Studies prove that most of the money is used to buy food, school supplies, and clothes for the children*".

The Brazilian "Bolsa Familia" programs received worldwide praises as it proved its effectiveness to reach the targeted social classes efficiently. Also, it successfully created social balance after their subsidy system was removed.

Chile:

The Chilean petroleum market was deregulated since the 1970s and ended its interventionist policy in the energy sector through opening the said sector to competitiveness in terms of production, importation and distribution. As a result of the gulf war in 1990-91 disturbing the normal functioning of petroleum markets, prices significantly increased, thus, Chile established "The Oil Prices Stabilization Fund"-(FEPP) to intervene everytime an increase goes beyond 12.5% from reference prices. The frequent sharp increases in oil prices on international markets exceeded all expectations and the fund balance reached critical levels in the early 2000s. Afterwards, this subsidy mechanism was subjected to several adjustments in order to ensure a proper functioning and significant monetary injections took place to save the fund.

As the FEPP's deficits started aggravating again in 2010, new measures were implemented in order to replace the fund, which was the case in 2011, introducing a tax adjustment mechanism that would guarantee a better price harmonization for the transition from an international to a domestic level.

As for accompanying measures to attenuate the negative impacts of oil increased prices on disadvantaged social classes, Chile succeeded to set social programs to compensate more than 5 million low-income households, in addition to another 1.6 million households whose electricity consumption was less than 150 kWh per month, according to an IMF report released in January 2013. Alongside other programs implemented like "Chile solidario" in 2002, a program based on conditional cash transfers to poor families granting them preferential access to healthcare, education and social security.

Indonesia:

As it was the case in the previous experiences of the countries mentioned above, Indonesia proceeded to cut all energy subsidies based on an "IMF-supported adjustment program" to reduce public expenditures in the wake of the crisis that hit the country in 1997. A sudden decision that worsened the political tensions in the country at that time by forgoing the progressive reforms approach that was planned by the Indonesian government. The repercussions did not take long surfacing, since domestic petroleum products prices spiked to alarming levels, as diesel prices reached an increase of 60%, gasoline's increased by 71%, and kerosene's by 25%. These sudden price changes were not welcomed by Indonesian people as waves of frustration took over the country. While social pressure grew unbearable, the country's political leader was discharged shortly after and the subsidies were restored.

For the first time in 2004, Indonesia became fully dependent on oil importations aggravating the situation even more, hence, a new price increases hit the country, causing the doubling of diesel prices and the tripling of kerosene's. In 2008, the government ceased the subsidies allocated to large industrial companies, preparing to cut down all subsidies by 2014.

Indonesia experienced many ups and downs in its subsidy policy, the frequent price fluctuations of petroleum products on international markets made the government go back and forth in terms of price liberalization strategy. Nonetheless, the reforms undertaken were accompanied by the implementation of considerable social measures to financially support the low income social classes and ease the brutal impact of price raises on them. The government created food subsidies and increased the budgetary allocations to important sectors like education, health and micro-financing small initiatives to create businesses, alongside unconditional cash transfers to the targeted poor households (19.3 million households).

Turkey:

The Turkish experience in price liberalization process was most successfully and strategically implemented, as structuring both private and public sectors and improving their economic conditions was key to the success of the undertaken reforms in the country.

In the 1990s, the petroleum industry in turkey was fully governed by state owned companies through the whole chain of exploration, production, distribution and price settings, as in the period prior to energy reforms the whole economy was controlled by the government's interventions, then the state gradually aimed to transform the said economy through opening up to private participation, competition and eradicate all forms of monopoly abuse.

Energy reforms in turkey began in 1990, as the privatization process started to lawfully take place through privatizing importing, refining, and distribution companies. It wasn't until 2005 that the price liberalization was completed. Meanwhile, the state interventions in the energy sector were always present during the process, in 1998, the government set "the Automatic Pricing Mechanism" to set price ceiling of petroleum products based on international markets price levels.

Strongly motivated by an EU membership, the law switched regulatory authority of the petroleum market in turkey from the Ministry of energy and delegated it to an independent agency to meet with European legislations in 2003. A couple of years later in 2005, petroleum prices were fully set by international market prices, thus, completing a long but successful price liberalization process.

After these reforms took place, the government set a number of social welfare programs and accompanying measures to mitigate their impacts on the national economy as a whole. The most significant are mainly tax exemption for LGP consumption and public transportation and financial aid allocated to farmers using diesel/fuel.

Morocco:
Unlike the Turkish experience, the Moroccan government handled the subsidy's policy changing process in a very short amount of time, as the first major reform took place in September 16th 2013 by implementing the partial indexation system. A system basically based on setting ceilings for the prices of fuel, gasoline and diesel, based on what is already established in the finance bill, any fluctuations beyond the preset ceilings was passed on selling prices. Shortly after in January 1st 2014, the government removed all subsidies allocated to gasoline and fuel (intended for industrial use). A year later in January 1st 2015, diesel was next to follow and finally all liquid petroleum products subsidies were fully removed.

On a budgetary level, these reforms successfully reduced compensation expenditures as they went from 56.6 Billion/MAD in 2012 to 13.8 Billion/MAD in 2015. The government finally put an end to overruns and the positive balances of the financial acts of 2013, 2014 and 2015 provided enough funds to clear all accumulated arrears in previous years that reached an amount of 22 Billion/MAD in 2012.

It should also be noted that the said success of the Moroccan experience is based on short term indicators. The picture might change in the long term. Especially if we take into account that the average annual crude oil prices went from 108.56 USD/barrel in 2013 to 43.55 USD/barrel in 2016. The conjuncture on international markets played a crucial role in the process. We can only wait and see what happens if prices start jumping upwards again.

On a social level, the government has put into place numerous social welfare programs, like the conditional cash transfers to support widows in precarious situations by granting an amount of 350 MAD monthly for each orphaned child having fulfilled the set conditions, nevertheless, a ceiling is fixed at 1050 MAD per month for one family, in cases of households with multiple children.

"Tayssir" is another implemented conditional cash transfer program to keep rural children in school, it reached more than 690,000 students in the 434 rural communities. As for health care services, a program called "RAMED" was created in 2002 to provide health insurance coverage for the benefit of the poor.

3. Conclusion

After exploring different countries' experiences in reforming their subsidy systems, we can clearly observe that the most successful ones were those who found proper channels to redistribute funds to the poor and invested largely on a social level to provide better conditions in terms of health, education, and protecting purchasing power. Furthermore, we noticed that countries that succeeded to work on their national economic growth, in general, were most likely to succeed in the mitigation of the subsidy removal. These successful experiences were basically based on strategically timed reforms that took years to implement. Most of these countries accompanied the reforms' process with numerous social welfare programs to support the poor.

Also, the removal of subsidy systems in most cases relieved budgetary expenditures, allowing the creation of new opportunities and provide enough resources for public investment creating new jobs and boosting national economic growth through the establishment of a proper and efficient framework for companies to compete, reducing the state's interventions and building market-oriented national economies.

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