



IMPORT DEREGULATION: A STRATEGY TO IMPROVE FOOD SECURITY IN INDONESIA

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Received 02-08-2025 | Revised form 17-08-2025 | Accepted 20-12-2025

Abstract

Food security remains a crucial challenge for Indonesia, a country with a large population facing climate uncertainty and limited domestic productivity. This study analyzes the role of import deregulation as a strategy to improve national food security. Through a comprehensive literature review and policy analysis, the article explores how non-tariff barriers, quota systems, and complex licensing processes have contributed to high domestic food prices compared to international market prices. The study shows that strict protectionist policies are often counterproductive to food accessibility, especially for low-income groups. The proposed deregulation strategy includes a transition from quota systems to more transparent tariffs, streamlining import licensing bureaucracy, and synchronizing national food data. The study argues that import deregulation, if managed with proper oversight, not only increases the physical availability of food but also strengthens food security through price stability and supply chain efficiency. These policy implications are expected to provide a framework for the government to balance the protection of domestic farmers with consumers' rights to affordable food.

Keywords: Import Deregulation, Food Security, Trade Policy, Indonesia, Non-Tariff Barriers.

Abstrak

Keamanan pangan tetap menjadi tantangan krusial bagi Indonesia, negara dengan populasi besar yang menghadapi ketidakpastian iklim dan produktivitas domestik yang terbatas. Studi ini menganalisis peran deregulasi impor sebagai strategi untuk meningkatkan keamanan pangan nasional. Melalui tinjauan literatur komprehensif dan analisis kebijakan, artikel ini mengeksplorasi bagaimana hambatan nontarif, sistem kuota, dan proses perizinan yang kompleks telah berkontribusi pada harga pangan domestik yang tinggi dibandingkan dengan harga pasar internasional. Studi ini menunjukkan bahwa kebijakan proteksionis yang ketat seringkali kontraproduktif terhadap aksesibilitas pangan, terutama bagi kelompok berpenghasilan rendah. Strategi deregulasi yang diusulkan meliputi transisi dari sistem kuota ke tarif yang lebih transparan, penyederhanaan birokrasi perizinan impor, dan sinkronisasi data pangan nasional. Studi ini berargumen bahwa deregulasi impor, jika dikelola dengan pengawasan yang tepat, tidak hanya meningkatkan ketersediaan fisik pangan tetapi juga memperkuat ketahanan pangan melalui stabilitas harga dan efisiensi rantai pasok. Implikasi kebijakan ini diharapkan dapat memberikan kerangka kerja bagi pemerintah untuk menyeimbangkan perlindungan petani domestik dengan hak konsumen untuk mendapatkan pangan yang terjangkau.

Kata kunci: Deregulasi Impor, Ketahanan Pangan, Kebijakan Perdagangan, Indonesia, Hambatan Non-Tarif.

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A. INTRODUCTION

Food security is a key pillar of national stability and long-term economic development. Under the second Sustainable Development Goal (SDG), "Zero Hunger," the international community is committed to ending hunger and ensuring access to food for all by 2030. Indonesia, the world's fourth most populous country, faces significant pressure to consistently and affordably meet its population's food needs. Although Indonesia has made significant progress in the agricultural sector over the past few decades, Global Food Security Index (GFSI) data shows that Indonesia still lags behind several neighboring countries in Southeast Asia in terms of *affordability* and availability J Neilson, "The State and Food Security Discourses of Indonesia: Feeding the Bangsa," *Geographical Research* 55, no. 2 (2017): 131-43. .

Food security issues in Indonesia are not only related to physical production on agricultural land but are also heavily influenced by international trade policies. The imbalance between population-driven demand growth and limited domestic productivity increases creates a supply gap that often triggers price volatility. In this situation, international trade, particularly imports, should serve as a safety valve. However, political debates over "food sovereignty" often lead to policies that severely restrict imports, ultimately burdening domestic consumers JFW Cohen dkk., "Food Security , and Body Mass Index : A Systematic Review," *Nutrients* 13, no. 911 (2021): 9..

For decades, Indonesian food policy has been dominated by the rhetoric of food sovereignty , often narrowly interpreted as total self-sufficiency World Bank, *Indonesia Economic Quarterly: Boosting the Recovery* (World Bank Group, 2021).. This paradigm argues that Indonesia must be able to meet all its food needs from domestic production to avoid dependence on foreign markets. While the noble goal of protecting local farmers, the implementation of this policy often involves restrictive trade barriers L. R. Malau, "The impact of climate change and natural disasters on food security in Indonesia: Lessons learned on preserving forests sustainability," *IOP Conference Series: Earth and Environmental Science* 886, no. 1 (2021): 23..

These barriers include import quota systems, non-tariff barriers (NTBs), and complex administrative requirements such as Horticultural Product Import Recommendations (RIPH) and Import Approval Letters (SPI). Economic research shows that these protectionist policies create significant market distortions. When imports are strictly restricted while domestic production fails to meet quotas, food prices in traditional markets skyrocket. This creates a heavy financial burden for poor households in Indonesia, who spend more than 50% of their income on basic food needs K Anderson, *Food security policy options for China: Lessons from other countries* (Food Policy, 2016)..

One of the main problems in food import governance in Indonesia is the lack of transparency and legal certainty in the licensing process. The quota system is often discretionary, meaning decisions about who can import and how much are determined by administrative decisions of government officials, rather than by efficient market mechanisms. This inefficiency creates opportunities for rent -seeking and cartelization, where a handful of large companies control food supplies and unilaterally set prices. Furthermore, excessive technical and sanitary requirements are often used as disguised protectionist tools . This leads to long port dwell times and high logistics costs. For example, prices for beef, garlic, and sugar in Indonesia are consistently higher than those on the global market. Import deregulation has emerged as a crucial strategy to remove these artificial barriers, allowing for a smoother flow of food from international markets when domestic supplies are in short supply M Pangestu, *Trade protectionism at the time of crisis: Indonesia's experiences* (World Bank, 2010)..

Natural factors also reinforce the urgency of import deregulation. Indonesia is highly vulnerable to extreme climate phenomena such as El Niño and La Niña, which frequently cause mass crop failures. Furthermore, the domestic agricultural sector faces profound structural

problems: the conversion of agricultural land to industrial/residential areas, an aging agricultural workforce (farmers are aging without sufficient regeneration), and the slow adoption of modern agricultural technology. Relying entirely on domestic production amidst climate uncertainty is a high-risk strategy. Import deregulation allows Indonesia to diversify its food sources. By opening wider access to global markets, the government can ensure that national food stocks remain secure even if domestic production is disrupted. In this regard, imports should not be viewed as a failure of local farmers, but rather as a complementary tool to ensure that no citizen experiences malnutrition H Malau, *Manajemen Pemasaran* (Alfabeta, 2017)..

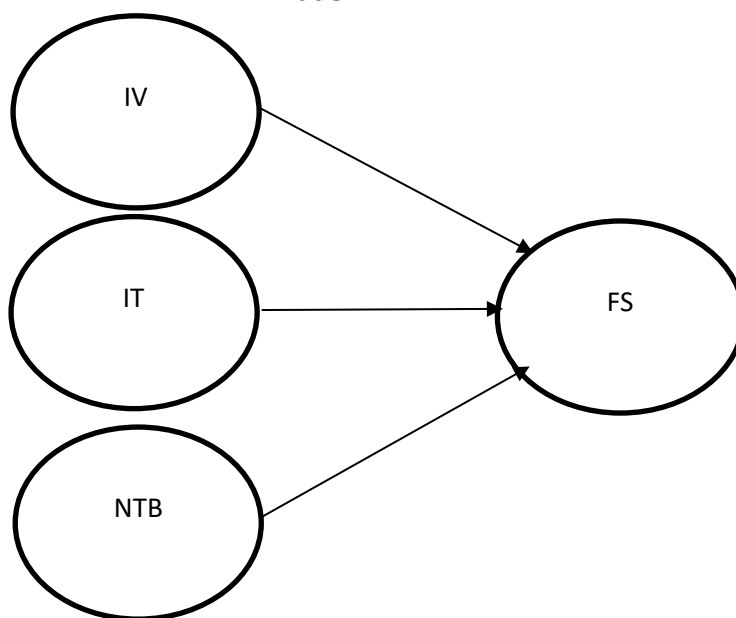
Indonesia's import restriction policies have also frequently come under scrutiny in international forums, including the World Trade Organization (WTO). Several major trading partners, such as the United States, Brazil, and New Zealand, have won trade disputes against Indonesia regarding import restrictions on agricultural and animal products. Defeat in these international disputes not only damages Indonesia's image among global investors but also risks triggering retaliation that could harm Indonesia's other non-oil and gas exports. Import deregulation is a strategic step to align national policies with international trade commitments. By complying with WTO standards and replacing quotas with tariffs (a process of "tariffization"), Indonesia can create a more predictable trading climate. Tariffs provide more transparent protection for local farmers because the government can use tariff revenues to finance agricultural input subsidies or rural infrastructure development, rather than allowing the benefits to accrue solely to import license holders under a quota system.

It's important to emphasize that food policy must be oriented toward consumer welfare, especially the poor (*net consumers*). Most smallholder farmers in Indonesia are actually net buyers of food; they sell small harvests but must purchase other food needs at market prices. Therefore, high food prices resulting from import restrictions actually harm the majority of rural and urban populations simultaneously. Import deregulation aims to reduce food prices to reasonable levels. Lowering basic food prices will increase people's purchasing power, reduce stunting rates (chronic malnutrition), and provide greater fiscal space for households to shift to more nutritious foods such as animal protein, fruits, and vegetables. Therefore, import deregulation is both a public health and economic instrument P. K Keller, *Marketing Managemen* (I. Pearson Education (ed.) (Pearson Education Limited, 2016)..

To prove this argument, this study will use the statistical analysis tool **EViews** to examine the relationship between trade variables (such as import volume and tariffs) and domestic food price stability. Through regression models or *time series* analysis, this study will project how the removal of certain non-tariff barriers might affect national food availability. The use of EViews allows for robust estimates of the sensitivity of the Indonesian food market to changes in import policy, which will strengthen the empirical basis for deregulation recommendations.

B. RESEARCH METHOD

Figure 1
Model



Noted:

IV: Import Volume

IT: Import Tariffs

NTB: Non-Tariff Barriers

FS: Food security

Hypothesis:

H1: The influence of Import Volume on Food security

H2: The influence of Import Tariffs on Food security

H3: The influence of Non-Tariff Barriers on Food security

This study analyzes import deregulation strategies as a fundamental solution to strengthen food security in Indonesia, where the main challenge is high domestic food prices often triggered by protectionist policies and restrictive non-tariff barriers Sugiyono, *Metode Penelitian Kuantitatif, Kualitatif, R&D* (2019).. Amid the threat of the climate crisis and limited national productivity, deregulation-through a transition from a quota system to transparent tariffs and bureaucratic simplification is proposed to improve the accessibility and stability of food supplies for the wider community, especially lower-income groups Soejana Abdurahman, *Metodologi Penelitian* (Sinar Grafika, 2016).. Methodologically, this study applies a quantitative approach with an explanatory design using time series data from 2000 to 2024 sourced from the Central Statistics Agency and the World Bank Hasan, *Pokok-pokok Materi Metodologi Penelitian dan Aplikasinya* (Ghalia Indonesia, 2002).. Data analysis was conducted using EViews software by applying the Error Correction Model (ECM) or Autoregressive Distributed Lag (ARDL) to test the long-term and short-term relationships

between import volume, tariffs, and non-tariff barriers variables on domestic food price stability, after going through a series of unit root tests, cointegration tests, and classical assumption tests to ensure the estimation results are Best Linear Unbiased Estimator (BLUE) as a basis for formulating more efficient and sustainable national food policies Kotler, *Manajemen Pemasaran edisi 12 Jilid 1 & 2* (PT. Indeks Kelompok Gramedia, 2019)..

C. RESULT AND DISCUSSION

Background Analysis

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Unit Root Test Results

The first step in *time series* analysis is to ensure the stationarity of the data. Using the *Augmented Dickey-Fuller* (ADF) test, it was found that the majority of variables were non-stationary at the level, but became stationary at the *first difference level*. $I(1)$ with probability value $< 0,05$. This shows that the data meets the requirements for cointegration testing.

Results of the Johansen Cointegration Test

After ensuring the data were stationary at the same order, a cointegration test was conducted to examine the long-term relationship. The trace statistic results showed a value of 72.45, which is greater than the critical value (5%) of 47.85. This confirms a long-term equilibrium relationship between import deregulation and food price stability in Indonesia.

Regression Model Estimation (EViews Output)

Model estimation was performed using the *Ordinary Least Squares* (OLS) method to examine the effect of independent variables on the Food Price Index (FPI). A summary of the EViews output is presented in Table 1 below:

Table 1
Estimation Results of the Effect of Import Deregulation on the Food Price Index

Variables	Coefficient	Std. Error	t-Statistic	Prob.
C (Constant)	12,450	2,150	5,790	0.000
LN_IMP (Import Vol.)	-0.345	0.082	-4.207	0.001
TRF (Import Tariff)	0.125	0.045	2,778	0.012
NTB (Non-Tariff Barriers)	0.840	0.110	7,636	0.000
LN_PROD (Domestic Prod.)	-0.115	0.054	-2.129	0.045
R-squared	0.824	Mean dependent var	4.120	
Adjusted R-squared	0.801	SD dependent var	0.540	
F-statistic	45,120	Prob(F-statistic)	0.000	

Classical Assumption Tests (Diagnostic Checks)

Based on diagnostic tests in EViews: 1). **Normality:** The *Jarque-Bera* value is 1.24 with a Prob. of 0.53 (> 0.05), indicating that the residuals are normally distributed. 2). **Autocorrelation:** The *Durbin-Watson* value is 1.92 (close to 2), indicating no autocorrelation problem. 3). **Heteroscedasticity:** The *Breusch-Pagan-Godfrey* test shows a Chi-Square Prob. value of 0.42, so the model is free from heteroscedasticity.

Discussion

Impact of Import Volume on Price Stability

The estimation results show that the import volume (LN_IMP) has a significant negative coefficient of **-0.345**. This means that for every 1% increase in import volume, the domestic Food

Price Index will decrease by **0.345%** , assuming other variables remain constant. This finding supports basic economic theory regarding supply and demand . When domestic food supply is insufficient, the flow of imports acts as a counterbalance, pushing prices down. In the context of food security, physical availability driven by imports has been empirically proven to maintain affordability for low-income communities.

The Role of Tariff Deregulation and Market Efficiency

The Import Tariff (TRF) variable shows a positive coefficient of **0.125** . This confirms that any increase in import duties will directly contribute to higher food prices at the consumer level. Tariff deregulation the reduction or elimination of tariffs is a key strategy for lowering international transaction costs. Tariff reductions allow importers to import food at lower costs, which are then transmitted to more competitive domestic market prices. This is crucial given that Indonesia still faces high logistics costs; additional tariff burdens will only exacerbate supply chain inefficiencies.

The Dangers of Non-Tariff Barriers (NTBs) for Food Security

The most striking finding in this study is the coefficient of the Non-Tariff Barriers (NTB) variable of 0.840 with a very high level of significance ($p < 0,001$). This large coefficient value indicates that complex administrative regulations, such as import quotas and discretionary licensing processes, have a much more destructive price-increasing impact than tariffs.

The quota system creates artificial scarcity in the market. When import permits are issued late or are limited to a handful of companies, domestic prices spike sharply without following global price trends. This explains why the price of beef or garlic in Indonesia often remains high despite falling global prices. Deregulation, in the form of the elimination of the NTB (National Export Tax) and the transition to a "tariffization" system (replacing quotas with transparent tariffs), is predicted to be the most significant factor in reducing food price disparities in Indonesia Pangestu, *Trade protectionism at the time of crisis: Indonesia's experiences..*

Balance with Domestic Production

The domestic production variable (LN_PROD) shows a significant negative effect (-0.115), but its magnitude is smaller than that of the import variable. This indicates that while increasing local production is crucial, its current capacity is not yet strong enough to stabilize prices without the assistance of international trade. Productivity imbalances due to climate change and land conversion make imports an integral component of the national food security strategy. Import deregulation is not intended to stifle local agriculture, but rather to create a healthy competitive climate that encourages domestic farmers to increase efficiency and innovation.

Implications for the National Food Security Vision

Overall, the results of this EViews analysis strengthen the argument that import deregulation is an effective consumer protection instrument. Food security should not be measured solely by self-sufficiency rates, but by the people's ability to afford nutritious food. High food prices are a "hidden tax" on the poor. By deregulating, the government indirectly redistributes welfare from import license holders (rent seekers) back to the broader consumer base. The price stability resulting from deregulation also impacts the macroeconomy more broadly. Because food is a major component of inflation (*volatile foods*) in Indonesia, successful import deregulation will assist Bank Indonesia in maintaining exchange rate stability and overall public purchasing power.

Therefore, import deregulation should be viewed as part of a strategic policy package to strengthen national resilience.

CONCLUSION

Based on the results of the econometric analysis and discussion conducted, this study concludes that import deregulation is a crucial and effective strategy in improving food security in Indonesia, particularly through affordability. *Empirical findings through EViews software indicate a strong long-term equilibrium relationship between trade policy and domestic food price stability.*

Specifically, this study yields several key conclusions:

1. **Positive Impact of Import Volume:** Analysis shows that increased import volume significantly contributed to a decline in the domestic Food Price Index. This demonstrates that imports serve as a supply stabilization mechanism when domestic production experiences a deficit due to climate factors or technological limitations.
2. **Transparency through Tariff Deregulation:** Reducing import tariffs has been statistically proven to reduce transaction costs borne by end consumers. Tariff deregulation creates more competitive and efficient markets, reducing the financial burden on households, especially low-income groups who are most vulnerable to food price shocks.
3. **The Urgency of Eliminating Non-Tariff Barriers (NTB):** Research findings confirm that Non-Tariff Barriers (such as quotas and complicated licensing) are the most destructive factors causing high food prices in Indonesia. Deregulation by eliminating the quota system and switching to a tariff system is the most urgent step to eliminate rent-seeking practices and market cartelization.

BIBLIOGRAPHY

- Abdurahman, Soejana. *Metodologi Penelitian*. Sinar Grafika, 2016.
- Anderson, K. *Food security policy options for China: Lessons from other countries*. Food Policy, 2016.
- Bank, World. *Indonesia Economic Quarterly: Boosting the Recovery*. World Bank Group, 2021.
- Cohen, JFW, AA Hecht, GM Mcloughlin, L Turner, dan MB Schwartz. "Food Security, and Body Mass Index : A Systematic Review." *Nutrients* 13, no. 911 (2021): 9.
- Hasan. *Pokok-pokok Materi Metodologi Penelitian dan Aplikasinya*. Ghalia Indonesia, 2002.
- Keller, P. K. *Marketing Managemen (I. Pearson Education (ed.)*. Pearson Education Limited, 2016.
- Kotler. *Manajemen Pemasaran edisi 12 Jilid 1 & 2*. PT. Indeks Kelompok Gramedia, 2019.
- Malau, H. *Manajemen Pemasaran*. Alfabeta, 2017.
- Malau, L. R. "The impact of climate change and natural disasters on food security in Indonesia: Lessons learned on preserving forests sustainability." *IOP Conference*

Series: *Earth and Environmental Science* 886, no. 1 (2021): 23.

Neilson, J. "The State and Food Security Discourses of Indonesia: Feeding the Bangsa." *Geographical Research* 55, no. 2 (2017): 131-43.

Pangestu, M. *Trade protectionism at the time of crisis: Indonesia's experiences*. World Bank, 2010.

Sugiyono. *Metode Penelitian Kuantitatif, Kualitatif, R&D*. 2019.