



**UNIVERSITI PUTRA MALAYSIA**

**IMPACT OF EXPORT DUTY STRUCTURE ON THE PERFORMANCE OF  
MALAYSIAN PALM OIL INDUSTRY**

**KELLY WONG KAI SENG**

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By

**KELLY WONG KAI SENG**

**Thesis Submitted to the School of Graduate Studies,  
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Requirements for the Degree of Doctor of Philosophy**

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Abstract of the thesis presented to the Senate of Universiti Putra Malaysia in fulfillment of the requirement for the degree of Doctor of Philosophy

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**Chairman: Professor Datuk Mad Nasir Shamsudin, PhD**  
**Faculty: Agriculture**

The loss of market shares in palm oil production and even in the amount of exports has given a wake-up call to the Malaysian palm oil industry to strengthen competency and competitiveness in the global market, especially in the perspective of export and local received prices. The key policy instrument to influence these two prices in Malaysia and Indonesia is the value of export duty which is a price gap between the export price and the local producer's received price of palm oil. In 2013, the Malaysian government followed the footsteps of the world top palm oil producer; Indonesia, by restructuring the export tax on CPO, i.e. the reduction of its rate within the range of 4.5% to 8.5% and increase the minimum threshold price from the previous RM 650 per tonne to current RM 2,250 per tonne. Due to the fact that the threshold prices have hugely increased, the export duty taxed by the Malaysian government in the first two months of the year 2013 is zero value and not more than RM 130 per tonne for the months following.

The ultimate objective of the reduction of export tax was to enhance the local production as well as to encourage the export of local palm oil. Nonetheless, after executing this policy, several questions have arisen. These are whether this new taxation structure could enable the Malaysian palm oil industry to sustain in the competitive global market in the long run, whether the rates of reductions in the new revised export duty structure could have a similar effect on the increment of threshold prices, whether the export duty trap could occur in the Malaysian current export duty structure, and finally what would be the consequences for the Malaysian palm oil industry if the Indonesian government revised its export duty structure and further reduced its export duty on CPO.

Motivated by the significance of this export duty policy on the performance of the Malaysian palm oil industry, the main objective of this study is to investigate the impact of export duty structure change in Malaysia and Indonesia on the performance of the Malaysia palm oil industry. In a nutshell, this study is divided into three major divisions in order to provide a comprehensive and robust overview regarding the impact of the export duty. The first division is to construct a Malaysian palm oil commodity model which is analyzed by 28 behavioural estimated equations through the times series

econometric approach (AutoRegressive Distributed Lag) and then combined with the 11 identity equations. Through the comprehensive robustness and validation tests, the palm oil model confirms the credibility of the forecasted values. In this first objective, the simulation forecast results show the new structure of export duty on Malaysian CPO reduces the gap between the local received and export prices. Through an increase of received price and a decrease of export price, the performance of the Malaysian palm oil industry could sustain its steady growth over the next decade. Hence, this new structure can be maintained to enhance the local producer's competitive power if there is no further Indonesian export duty reduction policy revisions in the future.

The second division of this study examines the impact of the abatement of the Malaysian palm oil export duty on the local palm oil industry performance. The simulation results show that the impact of reductions in the export duty rates and the impact of increases in the threshold prices on Malaysian palm oil industry have the same impact but with a different magnitude. Even though, the simulated results indicate that the policy of further reductions in Malaysian export duty will promote its positive effects on the local palm oil industry; however, the impact is shown as to not be significant. Thus, the further reduction of export tax is believed to no longer be the most effective policy in enhancing the competitiveness of local palm oil industry in the future. The main justifications of this statement are the low export tax introduced and the tax being levied is too low. This has created a condition similar to trade liberalization but in practice, this undesirable condition is known as the export duty trap. In this situation the current amplitude of reducing the Malaysian export tax is very constrained. Therefore, policymakers have to be aware of the possibility that the reduction of export tax may no longer be an effective approach in facilitating the development of palm oil industry.

The findings from the third objective indicate that the reduction of the Indonesian export duty on palm oil would cause a negative impact on the Malaysian export supply. This reflects that the export duty policy of Indonesia – the closest competitor of Malaysia, has an undeniably close relationship with the Malaysian palm oil industry performance, especially in the Malaysian demand market. The abatement of the Indonesian export duty has led to the shrinking of Malaysian palm oil market share in the global market. This significantly reduces the global excess demand for the Malaysian palm oil and the reduction of the Indonesian export levy would drive the export price even lower. Correspondingly, the global excess demand would shift towards the Indonesian palm oil market due to its reduced price. The shift of the global excess demand out of Malaysia would lead to a palm oil export deflation. As a consequence, the world price of palm oil as well as the Malaysian palm oil export price will drop.

In conclusion, the overall findings suggest that if there are no Indonesian export duty reduction policy revisions in the future, the policymakers can maintain the current export duty structure of the Malaysian CPO in order to achieve a sustainable growth. In contrast, the policymakers have to recognize that the export tax reduction policy is no longer regarded as the most effective policy in enhancing the competitiveness of the local palm oil industry, if the Indonesian government revises and reduces its export duty through such means as lowering the export tax rates and increasing the threshold prices. The

Malaysian local producers have to be more independent and need to diversify their palm oil products through some innovative schemes as well as R&D. As an open trade market, the blue ocean strategy seems like an unavoidable strategy for the Malaysian palm oil industry in which the local producers should create new market demands for their palm oil products rather than compete head-to-head with other global palm oil producers, especially Indonesia.



Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia Sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

## **KESAN STRUKTUR DUTI EKSPORT KEPADA PRESTASI INDUSTRI MINYAK SAWIT DI MALAYSIA**

Oleh

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Kehilangan bahagian pasaran dalam pengeluaran minyak sawit dan jumlah eksport minyak sawit telah memberikan ramalan bagi industri pengeluaran minyak sawit supaya dapat memperkukuhkan kecekapan dan daya saing mereka dalam pasaran global, terutamanya dalam perspektif eksport dan juga harga tempatan yang diterima. Dasar utama yang digunakan untuk mempengaruhi harga minyak sawit di negara Malaysia dan Indonesia adalah berdasarkan kepada dasar cukai eksport. Dimana, nilai cukai export yang dicukai adalah merupakan jurang harga antara harga eksport dan harga yang diterima oleh pengeluar tempatan. Pada tahun 2013, kerajaan Malaysia mengikuti jejak langkah dari Indonesia dengan menyusun semula struktur cukai eksport atas CPO, iaitu mengurangkan kadar cukai kepada julat antara 4.5% hingga 8.5% serta meningkatkan tahap harga ambang minimum dari RM 650 per tan kepada RM 2,250 per tan. Peningkatan harga ambang tersebut adalah ditetapkan pada harga yang terlalu tinggi dan ia telah menyebabkan duti eksport yang dicukai oleh kerajaan Malaysia adalah bernilai kosong pada bualan Januari dan Februari 2013. Disamping itu, cukai yang dikenakan pada bulan seterusnya adalah kurang daripada RM 130 untuk setiap tan.

Pengurangan cukai eksport adalah bertujuan untuk meningkatkan pengeluaran tempatan dan juga dapat menggalakkan peningkatan eksport minyak sawit tempatan ke luar negara. Walau bagaimanapun, beberapa soalan kajian yang berdasarkan struktur cukai eksport baharu ini adalah ditimbulkan. Iaitu, sama ada struktur cukai baharu itu dapat membantu industri minyak sawit di Malaysia dapat mengekalkan dan meneruskan kerjayannya di pasaran global yang kompetitif ini? Adakah struktur duti eksport baharu ini merupakan sebagai perangkap export duti (*export duty trap*) di Malaysia? Seterusnya, apakah kesan kepada industri minyak sawit di Malaysia jika kerajaan Indonesia menyemak semula struktur duti eksportnya serta terus mengurangkan duti eksport ke atas minyak sawit?



Berdasarkan kepentingan dasar duti eksport atas prestasi industri minyak sawit di negara Malaysia, objektif utama kajian ini adalah untuk mengkaji kesan perubahan struktur duti eksport di Malaysia serta Indonesia kepada prestasi industri minyak sawit Malaysia. Secara ringkasnya, kajian ini akan dibahagikan kepada tiga bahagian yang utama supaya dapat menunjukkan kesan duti eksport yang menyeluruh dan mantap. Bahagian pertama adalah membinakan komoditi model iaitu model minyak sawit Malaysia. Model tersebut merangumi menganalisa 28 persamaan regresi melalui pendekatan siri masa ekonometrik (*AutoRegresif Distrubuted Lag*) dan 11 persamaan identiti. Melalui ujian keteguhan dan pengesahan komprehensif, model minyak sawit ini dapat mengesahkan nilai yang diramalkan adalah berkredibiliti. Selapas itu, model minyak sawit tersebut menunjukkan duti eksport yang berstruktur baru di Malaysia dapat mengurangkan jurang harag di antara harga tempatan yang diterima dan harga eksport. Disamping itu, kesan peningkatan harga yang diterima dan penurunan harga eksport dapat mempengaruhi prestasi industri minyak sawit di Malaysia dengan mengekalkan pertumbuhan yang kukuh hingga tahun 2020. Oleh itu, struktur cukai yang baharu ini dapat dikekalkan untuk meningkatkan daya saing pengeluar tempatan jika Indonesia tiada melakukan dasar pengurangan duti eksport pada masa hadapan .

Objektif kedua dalam kajian ini adalah untuk mengkaji kesan pengurangan duti eksport minyak sawit di Malaysia atas prestasi industri minyak sawit tempatan. Keputusan simulasi dalam objektif kedua ini telah menunjukkan bahawa kesan dari pengurangan kadar duti eksport adalah keasan yang serupa dengan dasar kenaikan harga ambang cukai eksport dalam industri minyak sawit di Malaysia tetapi kadar perubahan dari kesan tersebut adalah berbeza. Walaupun demikian, keputusan simulasi tersebut telah menunjukkan bahawa dasar penurunan kadar duti eksport di Malaysia akan memberikan kesan positif yang tidak penting dalam industri minyak sawit tempatan. Oleh itu, terus pengurangan cukai eksport dipercayai tidak merupakan dasar yang paling berkesan bagi meningkatkan daya saing industri minyak sawit tempatan pada masa hadapan. Justifikasi utama kenyataan tersebut adalah disebabkan oleh cukai eksport yang diperkenalkan dalam keadaan yang terlalu rendah. Iaitu mewujudkan situasi yang hampir sama dengan keadaan liberalisasi perdagangan dan ia juga dikenali sebagai perangkap duti eksport. Dalam keadaan ini, kadar cukai eksport Malaysia yang boleh dikurangkan adalah sangat dikekang. Oleh itu, pihak pembuat dasar perlu menyedar bahawa kemungkinan atas pengurangan cukai eksport adalah tidak dapat menjadi sebagai pendekatan yang berkesan untuk mengembangkan pembangunan industri minyak sawit.

Hasil dari objektif ketiga telah menunjukkan bahawa pengurangan duti eksport minyak sawit dari Indonesia akan menyebabkan kesan negatif kepada penawaran eksport di Malaysia. Ini mencerminkan bahawa dasar duti eksport Indonesia (iaitu pesaing yang paling dekat dengan Malaysia) mempunyai hubungan rapat dengan prestasi industri minyak sawit di Malaysia yang tidak dapat dinafikan, terutamanya dalam pasaran permintaan. Seterusnya, pengurangan duti eksport di Indonesia akan menyebabkan bahagian pasaran minyak sawit Malaysia di pasaran global mengecut. Ini akan mengurangkan lebih permintaan antarabangsa dari Malaysia. Sehubunganya, lebih permintaan global akan beralih ke pasaran minyak sawit di Indonesia kerana harga export Indonesia telah diturunkan and menjadi lebih murah. Di samping itu, lebih

permintaan global akan mengalih keluar daripada pasaran eksport minyak sawit Malaysia dan membawa kesan deflasi. Akibatnya, harga dunia minyak sawit serta harga eksport minyak sawit Malaysia akan jatuh.

Secara ringkasnya, hasil kajian keseluruhan mencadangkan bahawa jika tiada semakan dasar pengurangan duti eksport dari Indonesia, pihak pembuat dasar boleh mengekalkan struktur duti eksport semasa untuk mencapai pertumbuhan yang mampan. Di sebaliknya, jika kerajaan Indonesia menyemak semula dan mengurangkan duti eksport mereka dengan melalui cara seperti menurunkan kadar cukai eksport ataupun meningkatkan harga ambang, pihak pembuat dasar Malaysia perlu mengitiraf bahawa dasar pengurangan cukai eksport tidak dapat dianggap sebagai dasar yang paling berkesan untuk meningkatkan daya saing industri minyak sawit tempatan,. Pengeluar Malaysia perlu juga menjadi lebih berdikari dan perlu mempelbagaikan produk minyak sawit mereka melalui beberapa skim inovatif serta penyelidikan dan pembangunan. Sebagai pasaran perdagangan terbuka, strategi lautan biru seolah-olahnya adalah satu strategi yang tidak dapat dielakkan bagi industri minyak sawit Malaysia di mana pengeluar tempatan perlu mewujudkan permintaan pasaran baru dan melakukan persaingan bukan harga bagi produk minyak sawit supaya tidak bersaing secara langsung dengan pengeluar minyak sawit dari anatarabangsa, terutamanya Indonesia.

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I certify that a Thesis Examination Committee has met on 28 August 2014 to conduct the final examination of Kelly Wong Kai Seng on his thesis entitled “Impact of Export Duty Structure on the Performance of Malaysian Palm Oil Industry” in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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This thesis was submitted to the Senate of Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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## TABLE OF CONTENTS

<b>ABSTRACT</b>	<b>Page</b>
	i
<b>ABSTRAK</b>	iv
<b>ACKNOWLEDGEMENT</b>	vii
<b>APPROVAL</b>	viii
<b>DECLARATION</b>	x
<b>LIST OF TABLES</b>	xv
<b>LIST OF FIGURES</b>	xviii
<b>LIST OF ABBREVIATIONS</b>	xxiii

### CHAPTER

<b>1</b>	<b>INTRODUCTION</b>	<b>1</b>
	1.1 Overviews of the Study	1
	1.2 Malaysian CPO's Export Duty Structures	3
	1.3 Indonesian CPO's Export Duty Structures	6
	1.4 Problem Statement	9
	1.5 Objective of the Study	11
	1.6 Significance and Contribution of the Study	11
	1.7 Organization of the Study	12
<b>2</b>	<b>MALAYSIAN PALM OIL INDUSTRY</b>	<b>13</b>
	2.1 Introduction	13
	2.2 Malaysian Palm Oil Production System	14
	2.2.1 Malaysian Palm Oil Planted Area	16
	2.2.2 Malaysian Palm Oil Productivity	16
	2.3 Marketing and Trade Demand	19
	2.3.1 Pricing	20
	2.3.2 Malaysian Palm Oil Export Destinations and Performance	21
	2.3.3 Import Demand of CPO	25
	2.3.4 Malaysian Palm Oil Utilization	25
<b>3</b>	<b>LITERATURE REVIEW</b>	<b>28</b>
	3.1 Empirical Review on Econometric Models	28
	3.2 Estimated Elasticities	38
	3.3 The Effects of Malaysian Export Duty on Crude Palm Oil	46
	3.3.1 Effects of Export Duty Reduction	48
	3.3.2 Effects of Export Duty Threshold Prices Increase	50
	3.4 Effects of Indonesian Export Duty Reduction on Crude Palm Oil	52
<b>4</b>	<b>METHODOLOGY</b>	<b>53</b>
	4.1 Conceptual Framework of Commodity Modelling	53



4.2	Palm Oil Model Specification	58
4.2.1	Oil Palm Planted Area	59
4.2.2	Oil Palm Harvested Area	59
4.2.3	Fresh Fruit Bunch (FFB) Production and Yield	60
4.2.4	Malaysian Crude Palm Oil Production	60
4.2.5	Malaysian Crude Palm Oil Ending Stock	61
4.2.6	Malaysian Palm Oil Export Demand	61
4.2.7	Malaysian Crude Palm Oil Domestic Demand	62
4.2.8	Malaysian Crude Palm Oil Import Demand	62
4.2.9	Crude Palm Oil World Price	62
4.2.10	Malaysian Crude Palm Oil Export Price	63
4.2.11	Malaysian Crude Palm Oil Farm Price	63
4.3	Application of Malaysian Agricultural Policy Analysis (MAGPA) Model	64
4.4	Econometric Modelling – AutoRegressive Distributed Lag (ARDL) Bounds Test	66
4.4.1	Cointegration Test – ARDL Bounds Test	66
4.4.2	ARDL Regression	68
4.5	Validation Test for the Forecasting Model	68
4.6	Data Sources	70
5	<b>RESULTS AND DISCUSSION</b>	75
5.1	Unit Root Test and ARDL Bounds Test	75
5.2	Malaysian Palm Oil Model Estimation	83
5.3	Malaysian Palm Oil Model within Sample and Out-of-Sample Validation	94
5.4	Malaysian Palm Oil Model Simulation Analysis	98
5.4.1	Malaysian Palm Oil Model – Baseline Simulation Results	98
5.4.1.1	Baseline Simulation for the Performance of Palm Oil Supply	98
5.4.1.2	Baseline Simulation for the Performance of Demand for Palm Oil	102
5.4.2	Impact of Malaysian Export Duty on Malaysian Palm Oil Industry Performance	106
5.4.2.1	Impact of Malaysian Export Duty Changes on the Palm Oil Supply	106
5.4.2.2	Impact of Malaysian Export Duty Changes on the Demand for Palm Oil	110
5.4.3	Impact of Indonesian Export Duty on Malaysian Palm Oil Industry Performance	113
5.4.3.1	Impact of Indonesian Export Duty Reduction on the Malaysian Palm Oil Supply	113
5.4.3.2	Impact of Indonesian Export Duty Reduction on the Malaysian Palm Oil Demand	117

6	<b>SUMMARY, CONCLUSION AND RECOMMENDATIONS FOR FUTURE RESEARCH</b>	120
	6.1 Summary of the Study	120
	6.3 Policy Implication of the Study	122
	6.4 Limitation and Recommendations for Future Research	124
	6.2 Major Findings and Conclusion	124
	<b>REFERENCES</b>	126
	<b>APPENDICES</b>	132
	<b>BIODATA OF STUDENT</b>	191
	<b>LIST OF PUBLICATIONS</b>	192

