

行政院所屬各機關因公出國人員出國報告書

(出國類別：出席國際會議)

出席
「亞太經濟合作 (APEC) 會議
第 26 次汽車部門對話會議」
會議報告

出國人服務機關、職稱及姓名：

經濟部工業局科長

童建強

交通部路政司科員

劉信宏

出國地點：越南河內

出國期間：106 年 5 月 10 日至 5 月 13 日

報告日期：106 年 6 月 5 日

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壹、前言

第 26 次 APEC 汽車對話會議由越南貿易工業部主辦，於 2017 年 5 月 10 日至 5 月 13 日在河內召開。共有來自中國大陸、印尼、日本、韓國、馬來西亞、菲律賓、俄羅斯、台灣、泰國、美國及越南等經濟體的政府與汽車產業代表參加了本次會議。同時印度汽車協會 SIAM (Society of India Automotive Manufacturers) 也以受邀嘉賓的身份參加了此次會議。APEC 秘書處此次由秘書處計畫執行長 Mr. Pavel Bronnikov 出席參加此次會議。

APEC 汽車對話會議旨在加強區域內汽車企業貿易的便利性及自由性並以加深不同文化背景下汽車產業間交流為目標之國際會議。同時負責將亞太地區汽車企業訴求和建議匯總到各經濟體的政府貿易相關部門。

本次台灣代表團由工業局金屬機電組運輸工具科童科長建強帶隊與交通部路政司劉科員信宏、車輛安全審驗中心謝經理昇蓉，以及車輛研究測試中心陳課長思豪等人共同與會。

本次會議包含雙邊會議及正式會議。因本次雙邊會議無涉台灣議題，因此本屆我國代表團主要係參與正式會議討論。正式會議議題著重各經濟體汽車市場、產業現況資訊分享與相關政策報告及 APEC 各項計畫進度更新。

貳、團員及任務分工

第26屆APEC汽車對話會議我國代表團成員，由工業局童科長建強率領，名單如下；

交通部路政司劉科員信宏 - 法規和道路安全議題

車輛研究測試中心電動車運行推廣課陳課長思豪 - 產業政策、市場進入、綠色能源車輛等議題

車輛安全審驗中心謝經理昇蓉 - 法規和道路安全議題

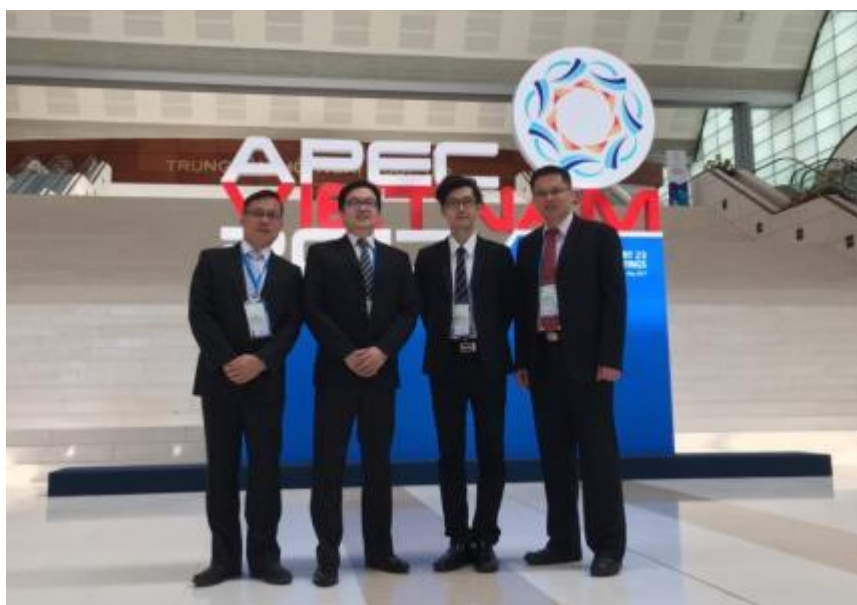


圖 2-1 代表成員



圖 2-2 會議剪影



圖 2-3 會議剪影

參、行程表

日期	到達地點	行程
5/10(三)	河內	出發：台灣移動至河內；向大會報到
5/11(四)	河內	參加第 26 屆 APEC 汽車對話會議
5/12(五)	河內	參加第 26 屆 APEC 汽車對話會議
5/13(六)	台北	返國

第 26 屆 APEC 汽車對話會議：106 年 5 月 10 日至 5 月 12 日於河內召開。

表 3-1 APEC 汽車對話會議議程表

26th APEC Automotive Dialogue Agenda

10-12 May 2017

Ha Noi, Viet Nam

Wednesday, 10 May 2017

09:00 - 18:00 Bilateral Meetings

Thursday, 11 May 2017

9:00 - 9:20 **Welcome Remarks** - *Deputy Minister of Industry and Trade of Viet Nam, H. E Do Thang Hai*

9:20 - 9:30 **Photo Opportunity**

9:30 - 9:45 **Coffee Break**

9:45 - 12:30 Item 1 **Adoption of the Agenda** (*AD Chair*)

Item 2 **CTI Update** - *Marie Sherylyn D. Aquia, CTI Chair*

Item 3 **Updates by the APEC Secretariat** - *Mr. Pavel Bronnikov Program Director, APEC Secretariat*

3.1 AD Project Update

3.2 APEC Collaboration System (ACS)

3.3 AD Budget Report

Item 4 **Market Access**

4.1 Industry and Market Situation

- China Automotive Industry Market Situation (China)
- Japan' s Automotive Industry Market Situation (*Japan*)
- Korean Automotive Industry Market Situation (*Korea*)
- Malaysia - Industry Situation and Market Development (*Malaysia*)
- Russian Automotive Industry - Market Situation (*Russia*)
- United States of America Automotive Industry and Market (*USA*)
- Viet Nam Automotive Industry Market Situation (*Viet Nam*)
- Indian Automotive Industry Market Situation (*SIAM*)

4.2 New FTAs/Implications of free trade agreements on the auto sector

4.3 Tax Structures/Regimes

4.4 New Automotive Policies/Regulations

- 4R2S, the Aftermarket Standards (*Malaysia*)
- Concept of Estimating the Emissions of Vehicles in Operation (*Russia*)

4.5 Future Direction of the Auto Industry in the APEC Region

Item 5 **Harmonization of Standards and Regulations**

5.1 APEC Project Updates

- The Impact of Government Policy Instruments on Promoting NEVs (*China*)
- Compendium on Motor Vehicle-Related Taxes in APEC (*USA*)

5.2 Automotive Regulatory Data Collection (*USA*)

5.3 Standards Alliance (*USA*)

5.4 Overview - effects of low fuel quality on vehicle components (*USA*)

5.5 WP-29 update (*USA*)

12:30 - 14:30 Lunch

14:30 - 16:40 Item 6 **Trade/Business Facilitation**

6.1 APEC Project Updates

- Compendium of Automotive Business Regimes in APEC
(*Philippines*)

Item 7 **Capacity Building**

7.1 APEC Project Updates

- GSAS (GVC-SME Integration for the Automotive Sector)
Project - Outcomes of the GSAS Workshop (*Malaysia*)

Item 8 **New Technology**

- New Automotive Technologies (*USA*)

8.1 APEC Project Updates

- APEC Roadmap for Electric Vehicles (*USA*)

8.2 New Propulsion Technologies

8.3 Autonomous Vehicles and Connectivity

8.4 Vehicle Cybersecurity

16:40 - 17:00 Coffee Break

17:00 - 18:00 Item 9 **Meeting Plan of AD 27** (*AD Chair*)

Item 10 **Organizational Issues** (*AD Chair*) - *Discussion on future AD hosting, chairing and budget. Members are invited to propose arrangements for moving forward.*

Item 11 **Summary of Decisions** (*AD Chair*)

Item 12 **Document Classification List** (*APEC Secretariat*)

Friday, 12 May 2017

9:00 - 12:00 **Meeting Summary and Report Writing**

肆、 工作內容

一、 正式會議

(一) 汽車對話會議主辦國代表開場致辭

2017 年第 26 屆 APEC 汽車對話會議主席是由越南工業貿易部國際合作處處長 Mr Le Huu Phuc 主持擔任主席並開場致詞。

(二) CTI 優先議題

CTI 主席報告及更新 2016 年 CTI 主要發展將著重在 WTO 多邊貿易系統、茂物宣言(Bogor Goals)、亞太自由貿易區 (Free Trade Area of the Asia-Pacific, FTAAP)、服務、下一世代貿易與投資問題及貿易程序簡易化等等項目。CTI 主席鼓勵汽車對話(AD)就現有工作，應與 CTI 優先項目具有一致性外，並朝向發展政策的目標進行規畫，向 CTI、資深官員會議、部長級會議及領袖會議等提出政策建言。

(三) APEC 秘書處更新

APEC 秘書處計畫主任向成員介紹了新 APEC 協作系統 (APEC Collaboration System ACS) 的啟動情況，並鼓勵成員積極使用其各種功能，如留言板，聯繫人列表，文檔提交頁面，有用的鏈接和活動日曆等。從 AD 27 起，成員只能通過 ACS 提交會議文件（不再透過電子郵件提交）

（四）市場現況及產業政策

包含中國、日本、韓國、馬來西亞、俄羅斯、美國與越南等多個經濟體介紹該國汽車業現況及政策方向，其中馬來西亞提到，日後在馬來西亞銷售的車輛將要求配備 eCall 裝置，日本及美國對此評論說，在實施本條例之前，汽車製造商需要更多的交貨期才能達到要求且其詳細要求也尚未確認。另外 SIAM 也介紹了印度市場形勢，稅收結構，貿易和汽車政策以及技術法規。

（五）馬來西亞 4R2S 標準

馬來西亞報告所推動的” 4R2S 後市場管理標準” 案，此係依循其 2014 國家汽車政策(NAP 2014)所導入，目的在於將國內車輛工業進行轉型，透過六個主要目標

將其進行整合以應對競爭持續增加的區域性及全球性工業網絡。其中政策指出車輛後市場端管理的重要性，以及 NAP 聚焦於確保後市場端的服務已被強化。這些包含費用的透明化、藉由適當程序及具熟練技能的技工所帶來的維修及服務能力改善、備用零件的標準化。

為了支持此 NAP 2014 所倡議的策略，此 4R2S 標準被定位為引導車輛工業達成產品及程序品質最佳化、保護使用者安全且是環保及商業上可維持的標準。

此 4R2S 標準是賦予後市場端車輛零部件重新使用、維修、重製、回收再利用、服務及備用零件計畫之資格及標準化的工業標準。

其中 4R 標準是回收再利用部品的指導方針，用於發展一重新使用、維修、重製或回收再利用零部件之管理系統的程序。此可提供安全且適合的回收再利用或重製的零部件給汽車使用者，同時有助於保護我們的環境。

而 2S 標準則是提供產業界在車輛維修各個環節一個良好作業及維修標準之共通平台。其藉由一個受規範/公認的車輛維修能力、完整的訓練及勝任的人員、被認

可的維修程序及正確的維修技術與材料提供汽車使用者安全且適合的維修。

此 4R2S 標準已在 2016 年 11 月發布，且馬來西亞後市場端產業正經由一個六個月計畫進行認可，藉由認可機制以確保產業日復一日的作業都能符合 4R2S 的標準。

(六) APEC 計畫更新

1. 中國大陸報告其獲得 APEC 經費資助的「政策對於新能源車推動之影響」計畫的執行進度，其說明本案的研究已完成且將在今年稍後舉辦一場研討會。計畫執行長提醒若將在第 27 屆汽車對話會議期間辦理此研討會，則鼓勵中國大陸可跟同樣規劃在該時間辦理電動車推進藍圖研討會的美國一起合作。
2. 美國報告有關 20 個 APEC 經濟體加上印度等國家的汽車稅制分析研究之更新成果，其包含關稅、購置稅、擁車稅及使用稅。此更新含括所使用的方法及所給予的假設條件，並包含印尼與新加坡最近的車輛稅制改變內容。其亦包含更正馬來西亞對於 Pickup 的貨物稅以及印度對於商用車

的進口稅。儘管有這些更新的部分，對於此汽車稅制分析研究的總體結果及結論並未有所改變。本案的總體結果計有：

(1)車輛稅制在各經濟體都不盡相同，但仍有一些明顯的相似處及模式浮現。

- 可將所研究的經濟體分成三個等級(負擔較高、負擔中等與負擔較低)，並主要是依照經濟體的開發程度而定。
- 車輛方面的關稅在 APEC 區域內從 0%到 100% 都有，且對很多經濟體仍是較大的影響。
- 稅賦對各經濟體的國內車輛市場組成有顯著的影響。
- 貨物稅在 APEC 區域內的汽車稅賦扮演特別重要的角色。

(2)WTO 要求貨物稅必須是沒有差別待遇的稅賦種類。

(3)大部分的 APEC 經濟體對於很多被視為推動目標的特定科技都有稅賦優惠措施。基於績效的賦稅優惠措施，更加直接的反應經濟體的核心目標，且相較其他方法

應優先予以考量，且燃油價格的上漲明顯成為提高車隊燃油效率的最佳手段。

3. AD 會議主席及韓國與日本的業界代表對本案的工作成果表達感謝也鼓勵能在此領域更進一步。經濟體表示有興趣就貨物稅的影響開展更多的工作，以及如同先前所同意的將此分析結果提送至 CTI。此外，並建議可就 APEC 區域內對於環境友善車輛的稅賦優惠措施進行比較。

4. 美國業界希望其他經濟體予以協助以利照計畫的推進此分析研究，並表示未能如先前所同意的在前次 CTI 會議說明本案在分析/事實方面的發現，但仍尋求在今年稍晚進行的可能性，以及將事先請經濟體提供意見。

(七) 汽車監管數據收集

美國代表說明了由國家交通安全管理局國家統計與分析中心 (NCSA) 管理的主要碰撞數據收集和評估方案。可以通過其網站 www.nhtsa.gov 獲取關於道路安全各個方面的 NCSA 報告。

(八) 標準聯盟

美國提供有關 ANSI 和 AID(Agency for International Development)公私合作夥伴關係之標準聯盟的相關訊息。此標準聯盟旨在向發展中的經濟體提供能力建置援助，尤其是與 WTO TBT 協定的實施有關的部分。標準聯盟將在 SOM3 期間舉辦兩場研討會，一場是強化在 WTO TBT 協定的監管專門技術，另一場則是有關良好法規實踐。

(九) WP. 29 更新

美國摘要報告 UNECE WP. 29 的資訊更新及最近一次會議(2017, 4/14~17 瑞士日內瓦)的主要議程項目與達成的進展。此更新內容包含電動車 GTR 法規的發展狀況、GTR 13 氫燃料車輛法規的未來工作發展及行人碰撞保護法規(GTR 9)。還包含自動車領域越來越受重視且計畫開展的摘要訊息。

日本評論其一直積極推動在 1958 協定修訂版中通過兩項具體規定，包含不僅允許締約方適用 UNECE 法規的舊版本，而且還改變 UNECE 法規的投票規定，自原先需三分之二締約方投票修正為五分之四。此經修訂的協議將於今年生效。日本希望這將鼓勵亞洲及其他地區的新興經濟體積極參與法規調和的活動，從而實現全球技術法規的一致化。

(十) 新技術項目

美國業界介紹了新型汽車技術（自主車輛，連接汽車和網絡安全）的重要性。它認為沒有一種技術方法是世界的解決方案，預計未來對各種新型推進技術的需求也將日益增長。由於消費者需求，環境因素，獲取自然能源，技術開發和政府政策等因素，特定推進技術的需求因經濟而異。為了使最有效和最適當的技術出現，建議政府的政策應該是“技術中立”。對於一個經濟來說，確保發展新技術成功和發展所需的基礎設施，這也是至關重要的。

自動車輛、車聯網和網絡安全問題被引入亞太經合組織。值得注意的是，全球各地，經濟體正在通過政府的努力，學術研究，私人公司和公私伙伴關係，開發和部署自動車輛和相關汽車技術。美國交通智能交通系統（ITS）計畫的工作，開發了一個關注汽車標準和技術的關聯車輛計畫，並製定了自動車輛計畫。

美國強調了協調標準以盡量減少屬於同一範圍的標準技術內容差異的重要性。強烈建議本區域經濟體透過

“世界汽車協調論壇”（WP.29）參與。另外與自主車輛和相關汽車技術的發展相關的是，越來越需要網絡安全，並積極制定指導方針和最佳做法來解決車輛操作系統的新潛在威脅。

美國建議將新技術和汽車行業的未來納入所有未來的 APEC AD 議程。美國在接下來的亞太經合會提出了一個研討會。菲律賓也提出了類似的建議，支持美國的提案。

（十一）電動汽車

美國說明“電動汽車 Roadmap”的狀況。簡要概述了先前第一個研討會針對目前的電動車市場和預測。該次會議的重點是向參與者概述區域標準和條例以及來自幾個經濟體的演講。這需要綜合評估該地區各種電動汽車的環境和挑戰。

下一次研討會計劃與 AD27 一起舉行。重點將放在：回收 - 如電池重複使用和再製造協議，網絡安全 - 駭客預防，個人數據問題與自動車輛路由訊息，駕駛員訊息，緊急救援協議，互操作性標準和 2 和 3 輪車輛相關

標準問題。鼓勵各經濟體積極參與下一次的研討會。

(十二) 第 27 屆汽車對話會議辦理規劃

越南說明將在適當時候更新 AD27 會議規劃。(初步規劃預計今年 9 月在胡志明市召開，不過尚待正式確認)；另有關 2018 年和 2019 年 AD 會議之主持和主辦經濟體，因本次會議無共識，將留待 AD27 時討論。

二、活動集錦



圖 4-1 全體合照



圖 4-2 會議剪影

伍、綜合結論

本次會議中，各經濟體分享車輛產業市場概況，包含 2016 年生產、銷售成長及 2017 年預期目標、FTA 簽署進度以及聯合國相關法規導入情形，讓各經濟體明瞭彼此車輛產業發展政策及未來利基。其中馬來西亞於會中提出未來車輛發展 4R2S 目標(4R：Reuse、Repair、Remanufacture、Recycle，2S：Service、Spare parts)，或許可與我國鼓勵車輛汰舊換新外銷出口政策鏈結並與新南向政策做整體考量規劃。

美國於會中報告各經濟體汽車相關稅率結構分析，並以不同車型為例，採用關稅、貨物稅、持有稅及使用稅等 4 項進行比較，我國於各經濟體中排行皆屬中段，且分析發現如以 10 年為期，持有稅率為影響的關鍵；使用稅率反而影響幅度較小。其中日本為持有稅率增長比例最高的國家，10 年此項稅率比例約佔 50%，而我國則無太大變化。此項逐年提高車輛持有稅率的政策可提供我國及 APEC 各經濟體對於老舊車輛汰換管理之參考。

美國另於會中報告 APEC 區域內電動車發展藍圖，以連結 ITS 技術為基礎，車間(V2V)、車路(V2I)或車輛與其他設備(V2X)通訊皆為發展趨勢，但前提是通訊協定統一制定為關鍵，提出電動車輛發展計畫，集中開發、廣泛使用為原則，促進 APEC 區域內

電動車輛發展。未來針對防護惡意入侵之安全性(Cybersecurity)

需進一步討論。

陸、建議

以下就會議結論，建議我國後續發展的事項：

- 一、 APEC 汽車部門對話會議是 APEC 會員體政府部門及汽車產業間重要之意見與經驗交流分享平台，對於會員體之汽車產業發展及政策形成均有重要幫助與影響，絕大多數國家之汽車產業主管機關、公會及業者均派員與會，建議未來國內汽車公會和業者亦可派員參加與會，藉由交流及觀摩以建立適合我國之汽車產業政策與方向並培養人脈探尋可能商機。
- 二、 東協國家在政府積極推動汽車零組件能量提升下，產值與開發能量均有長足進步，建議我國車輛零組件業者持續加強自我能量及提升市場競爭力，並持續觀察東協國家中小企業的發展動向，以利制定因應策略。
- 三、 新技術與新能源車輛已漸成各經濟體未來推動焦點，如何連結 ITS 技術，車間(V2V)、車路(V2I)或車輛與其他設備(V2X)通訊皆為發展趨勢，但最大關鍵還是在於制定統一通訊協定，以及防護惡意入侵之安全性(Cybersecurity)，後續我國應持續關注並參與相關議題討論會議，俾利掌握國際發展動態，協助我國廠商維持競爭優勢。

柒、檢附相關資料

一、中國大陸車輛產業現況簡報資料

China Automotive Industry Market Situation

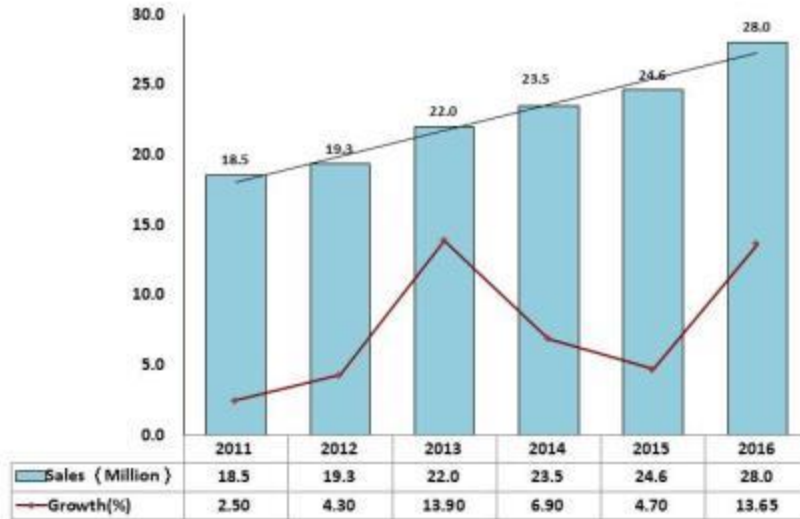
26. APEC Automotive Dialogue
May 2, 2017

Industry Overview

Categories	Total No. of Manufactures/ Companies
Automobile Manufacturers	75
Motorcycle Manufacturers	96
Parts Manufacturers	N/A

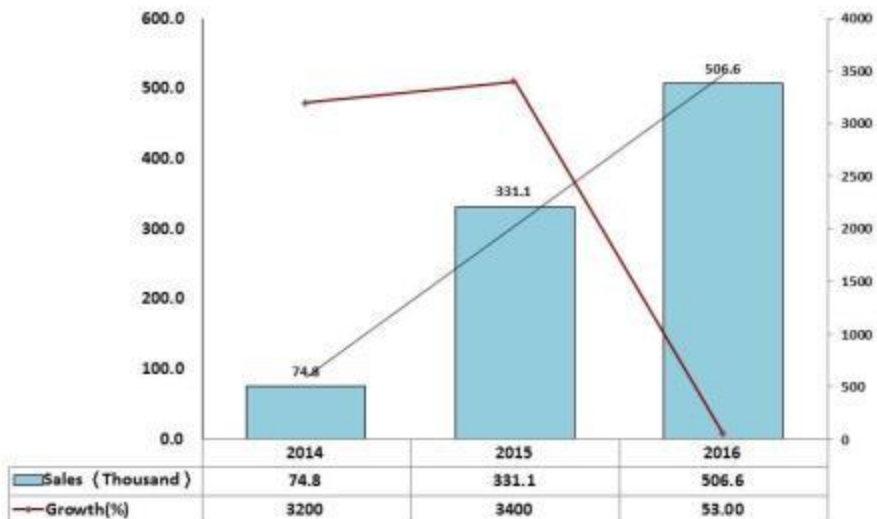
Industry Overview

Automotive Sales



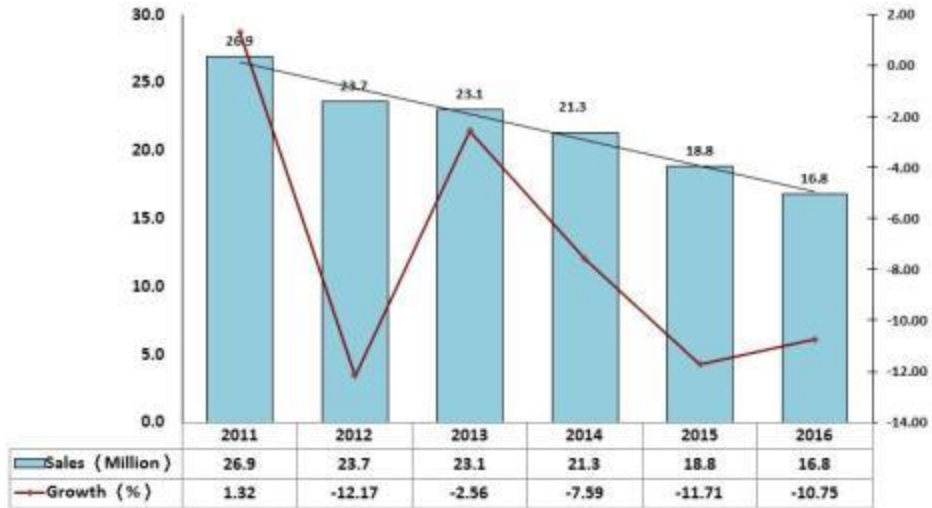
Industry Overview

NEV Sales



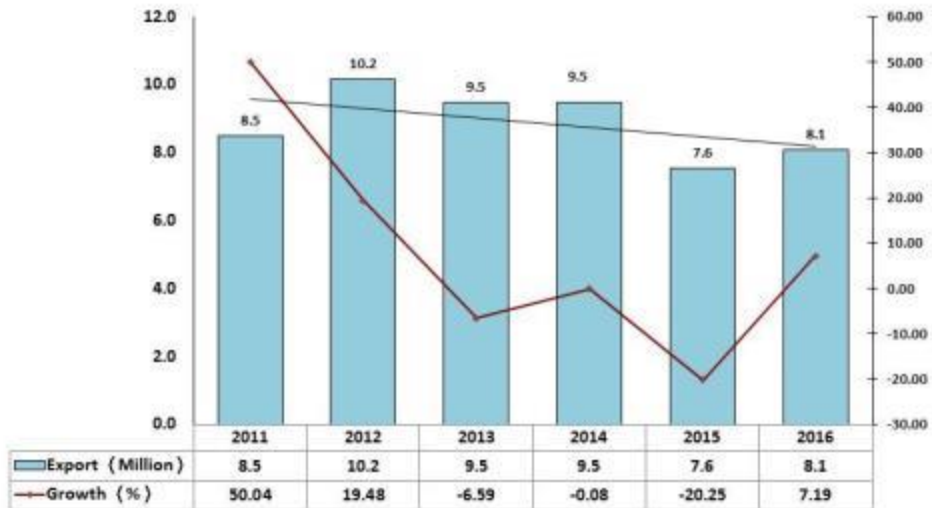
Industry Overview

Motorcycle Sales



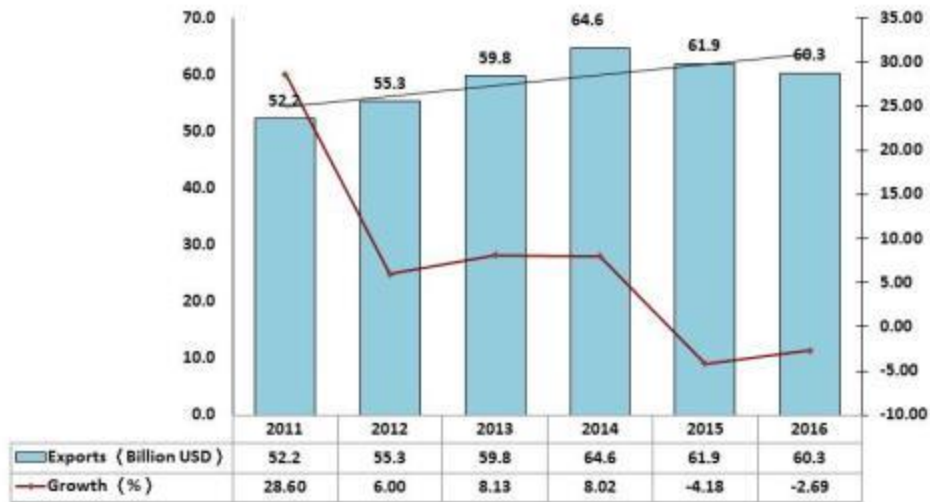
Industry Overview

Automotive Export



Industry Overview

Auto Parts Export



Market Outlook

	2015 ACTUAL	2016 ACTUAL	2017 FORECAST	Projected Growth Rate
Total Industry Volume (TIV)	24.6 million	28.03 million	29.40 million	5%
Passenger Vehicles (PV)	21.15 million	24.38 million	25.70 million	5%
Commercial Vehicles (CV)	3.45 million	3.65 million	3.70 million	2%

Tax Structure

Vehicle Type	LOCAL TAXES		
	Excise Duties	GST	vehicle purchase tax
Passenger Vehicle			
displacement ≤ 1.0L	1%	17%	7.5% (from 1 st Jan 2017 to 31 st Dec 2017)
1.0L < displacement ≤ 1.5L	3%	17%	7.5% (from 1 st Jan 2017 to 31 st Dec 2017)
1.5L < displacement ≤ 2.0L	5%	17%	10%
2.0L < displacement ≤ 2.5L	9%	17%	10%
2.5L < displacement ≤ 3.0L	12%	17%	10%
3.0L < displacement ≤ 4.0L	25%	17%	10%
4.0L < displacement	40%	17%	10%
Light and medium commercial passenger vehicle	5%	17%	10%
New energy vehicles	Up to the displacement	17%	0

Free Trade Agreements

Latest FTA

- **1st June 2015** FTA between China and South Korea
- **17th June 2015** FTA between China and Australia

Under Negotiation

- RECP (Regional Comprehensive Economic Partnership)
- China-GCC FTA
- China-Japan-Korea FTA
-

More information: <http://fta.mofcom.gov.cn/english/>

Automotive Policies and Regulations

1. "Reduce the vehicle purchase tax of 1.6 liters and below 1.6 liters passenger vehicle."

- From Jan 1st 2017 to Dec 31st 2017, the purchase tax of 1.6 liters and below 1.6 liters passenger vehicle shall be levied at a reduced rate of 7.5%.

2. "The policy to promote the transaction of used car."

- Cancelled the used car registration limitation policy. All vehicles that are allowed to travel on the road must be allowed to register.

Automotive Policies and Regulations

3. "Market access for new energy vehicle manufacturers "

- The government has improved the new energy vehicle manufacturers access requirements and established the market exit mechanism.

4. "Subsidy retreat for NEV."

- Subsidy standard retreat 20% every year. The subsidies for new energy vehicles will be cancelled completely after 2020.

Automotive Policies and Regulations

5. "Subsidy for charging infrastructure constructions "

- The government Released and implemented the rewarding policy of NEV charging infrastructure constructions in China in Jan. 2016.

6. "Automobile sales management policy "

- The government has modified the Automobile sales management policy. Dealers can also sell cars that are not authorized by the supplier from July 2017.

二、印度車輛產業現況簡報資料

Indian Automotive Industry Market Situation

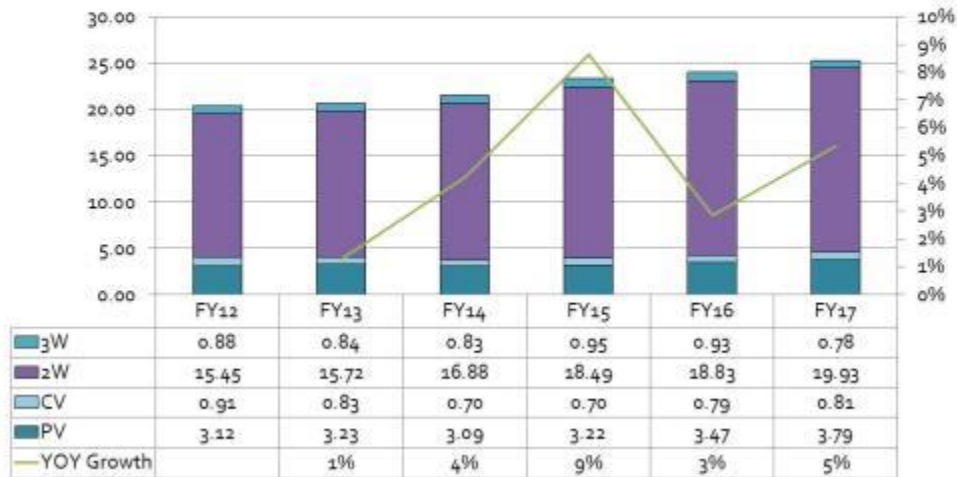
26th APEC Automotive Dialogue
Ha Noi, Viet Nam
May 11, 2017

Industry Overview

Categories	Total No. of Manufactures/ Companies	Total No. of New Entry Companies in 2016	Total No. of Employment
Automobile Manufacturers	48	-	2 million
Motorcycle Manufacturers	12	-	
Parts Manufacturers	747	NA	

Industry Overview

Automotive Production (in million)



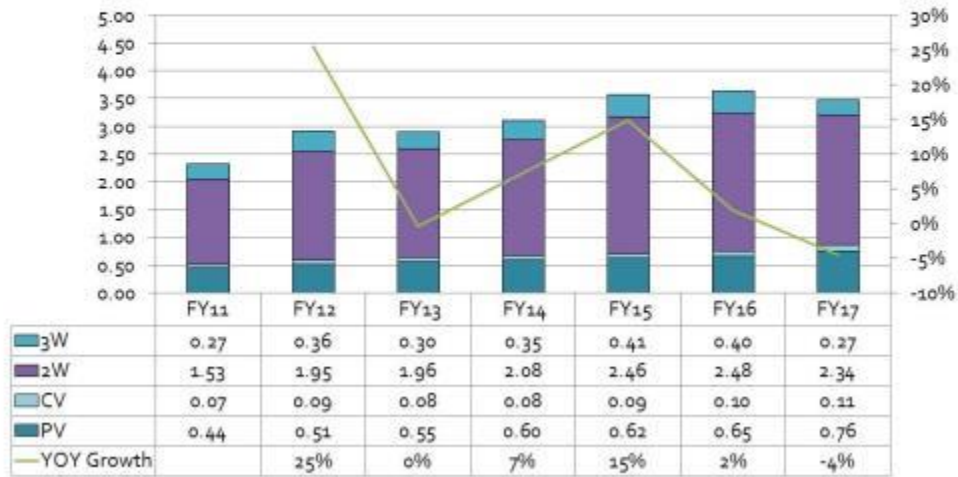
Industry Overview

Automotive Sales (in million)



Industry Overview

Automotive Exports (in million)



Market Outlook

	FY17 ACTUAL	FY18 FORECAST	Projected Growth Rate
Total Industry Volume (TIV)	21.86 million	23.92 million	6% - 8%
Passenger Vehicles (PV)	3.05 million	3.29 million	7% - 9%
Commercial Vehicles (CV)	0.71 million	0.75 million	4% - 6%

Tax Structure

Vehicle Category	Excise Duty
Small cars	12.5%
Length >4m but engine capacity less than 1500cc	24%
Length >4m and engine capacity more than 1500cc	27%
SUVs/MUVs (length >4m, engine capacity >1500cc and Ground clearance >170mm)	30%
Hybrid cars	12.5%
Specified components of Hybrid vehicles	6%
Electric cars, Buses, 2W & 3W	6%
Specified components of Electric vehicles	6%
Buses	12.5%
Trucks	12.5%
Three wheelers	12.5%
Two wheelers	12.5%

Additionally NCCD at 1%, Infra cess ranging between 1% - 4%, auto cess at 0.125%, CST at 2%, VAT at 12.5%, and road tax varying between 2% and 20% is also applicable on vehicles

Tax Structure

Vehicle Category	Import Duty in %
Used car import	125
Cars CBUs whose CIF value is more than \$ 40,000 or Petrol Engine > 3000 CC or Diesel engine > 2500 CC	100
Cars CBUs whose CIF value is less than \$ 40,000 and Petrol Engine < 3000 CC and Diesel engine < 2500 CC	60
Used two-wheeler	100
Two-wheeler CBUs with engine capacity <800 cc	60
Two-wheeler CBUs with engine capacity ≥800 cc	75
Commercial Vehicle CBUs (Trucks & Buses)	20
CKD containing engine or gearbox or transmission mechanism in pre-assembled form but not mounted on a chassis or a body assembly	30
CKD containing engine, gearbox and transmission mechanism not in a pre-assembled condition	10

Free Trade Agreements

Regional: SAFTA, ASEAN

Bilaterals: Japan, Korea, Malaysia, Singapore, Sri Lanka, Indonesia, Thailand, Bangladesh, Bhutan, Serbia/Montenegro, Chile

Under Negotiation: Australia, New Zealand, Canada, RCEP, EU, EFTA, Mercosur, SACU, BIMSTEC, Peru

Free Trade Agreements – Auto Industry

Duties under FTAs

Automobile CBUs not included in Free Trade Agreements

Automotive Policies and Regulations

- **100% FDI allowed**
 - No restrictions on import- no Quantitative Restrictions
 - No localisation requirements
 - No export obligation
 - No R&D requirement
- **Automotive Mission Plan 2016-26**
 - "By 2026, the Indian automotive industry will be among the top three of the world in engineering, manufacture and export of vehicles and components, and will encompass safe, efficient and environment friendly conditions for affordable mobility of people and transportation of goods in India comparable with global standards, growing in value to over 12% of India's GDP¹, and generating an additional 65 million jobs"

Automotive Policies and Regulations

- **Emission Regulations Policy**
 - BS IV – Implemented
 - BS V – Skip
 - BS VI – April 1, 2020
- **Fuel Efficiency Regulations**
 - Passenger Cars
 - Phase 1 : 2017-18 to 2021-22, manufacturers to meet 129.8 g/km CO₂ at industry weight of 1037 kg
 - Phase 2 : 2022-23 onwards, manufacturers to meet 113 g/km CO₂ at industry weight of 1145 kg
 - Heavy Vehicles
 - Petroleum Conservation Research Association (PCRA) under MoPNG developing standards for Heavy Duty Vehicles

Automotive Policies and Regulations

- **FAME Policy**
 - Achieve energy (fuel) security
 - Provide affordable fuel efficient automobiles to masses
 - Create domestic manufacturing eco-system of xEVs
 - Create additional jobs
- **Deliverable:** 5-7 Million Hybrid and Electric Vehicles from 2020 onwards
- National Council for Electric Mobility (NCEM) & National Board for Electric Mobility (NBEM) provided a framework:
 - **Principle 1:** Promote complete range of hybrid and electric technologies (Mild Hybrid, Strong Hybrid, Plug-in Hybrid & Pure Electric). [Market driven technology adoption and creation of viable eco-system]
 - **Principle 2:** Promote all categories of vehicles with greater emphasis on Public Transportation. [Creation of market driven viable transportation solutions]

Automotive Policies and Regulations

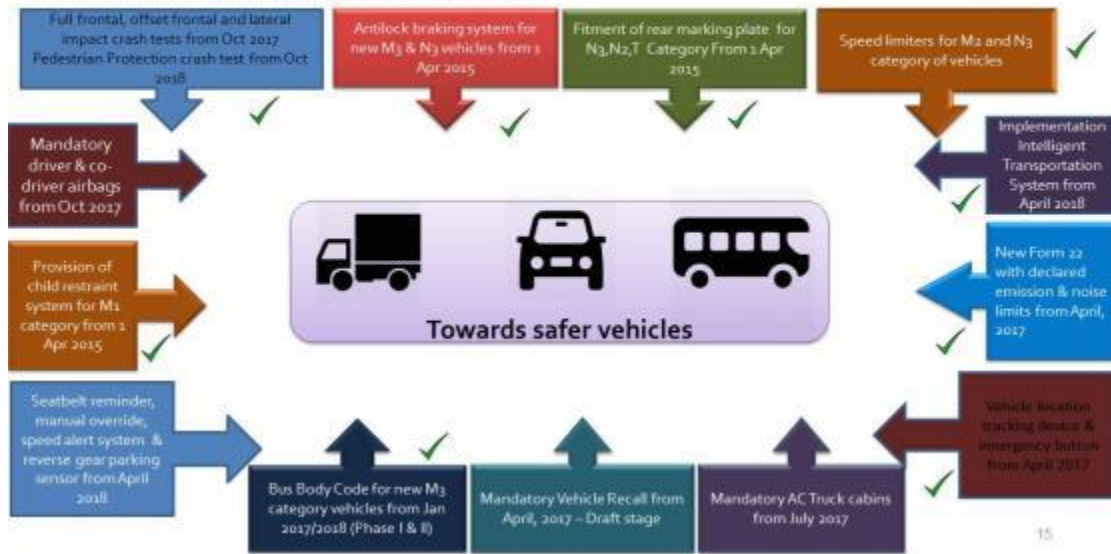
New Safety Requirements – Two Wheeler



14

Automotive Policies and Regulations

RECENT SAFETY STANDARDS – 4 W



Japan's Automotive Industry Market Situation

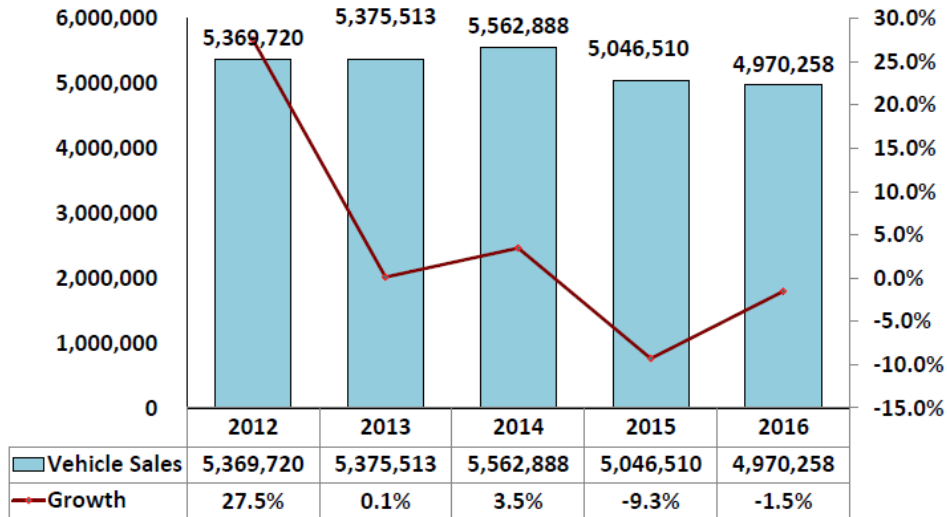
26th APEC Automotive Dialogue
Hanoi, Vietnam
May 11, 2017

Industry Overview

Categories	Total No. of Manufactures/ Companies	Total No. of New Entry Companies in 2015	Total No. of Employment
Automobile Manufacturers	12 (JAMA members)	0	188,000
Motorcycle Manufacturers	4 (JAMA members)	0	
Parts Manufacturers	441 (JAPIA members)	N.A	609,000
Direct Importers	37 (JAIA members)	N.A	N.A
Total	492 (JAMA, JAPIA, JAIA members)	N.A	5.34million (Auto manufacturing and related industries)

Industry Overview

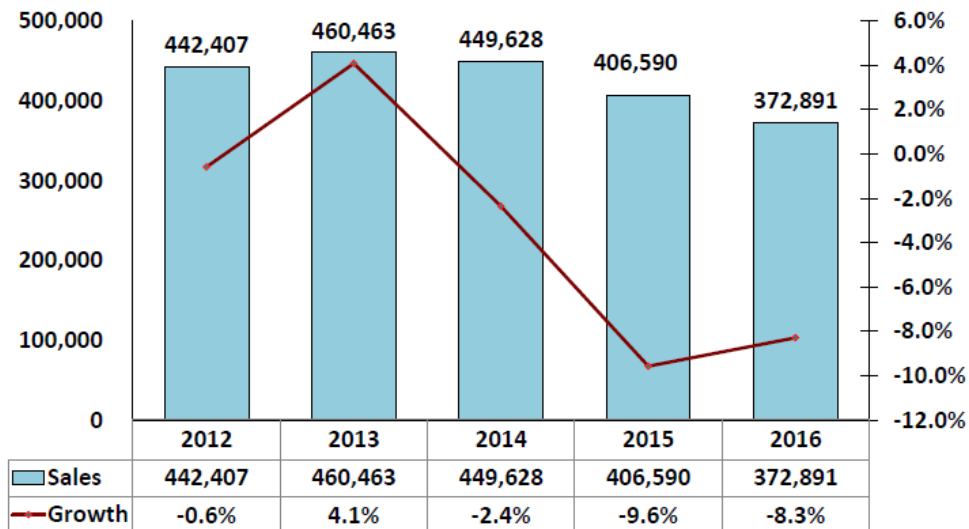
Motor Vehicle Sales



2

Industry Overview

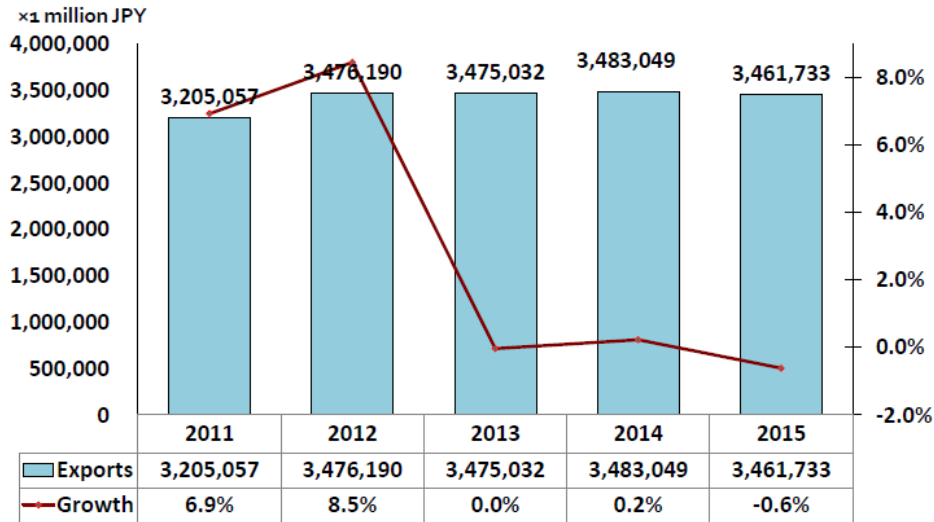
Motorcycle Sales



3

Industry Overview

Auto Parts Export



Auto Parts...HS Code 8707,8708 4

Market Outlook

	2016 ACTUAL *Fiscal year	2017 FORECAST Fiscal year	Projected Growth Rate
Total Industry Volume (TIV)	5,077,904	5,000,300	98.5%
Passenger Vehicles (PV)	4,243,394	4,178,000	98.5%
Commercial Vehicles (CV)	834,510	822,300	98.5%

*Japan's fiscal year starts on April 1st and ends on March 31th.

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Tax Structure

Tax Category & Type		Tax Rate/ Amount
On Acquisition	Acquisition tax	3% (2% for commercial vehicles and mini-vehicles)
	Consumption tax (on automobiles)	8%
During Ownership	Tonnage tax	¥4,100/0.5t per year (for private-use passenger cars complying with latest fuel efficiency standards)
	Automobile tax	¥29,500-¥111,000 per year (according to engine capacity)
	Mini-vehicle tax	¥10,800/year (for private-use passenger cars)
While in Use	Gasoline tax	¥48.6/ℓ
	Regional gasoline excise tax	¥5.2/ℓ
	Diesel handling tax	¥32.1/ℓ (light oil)
	LPG tax	¥17.5/kg (LPG)
	Consumption tax (on fuels)	8%

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四、韓國車輛產業現況簡報資料

[Korea] Automotive Industry Market Situation

26th APEC Automotive Dialogue

Hanoi, Vietnam

11 May 2017

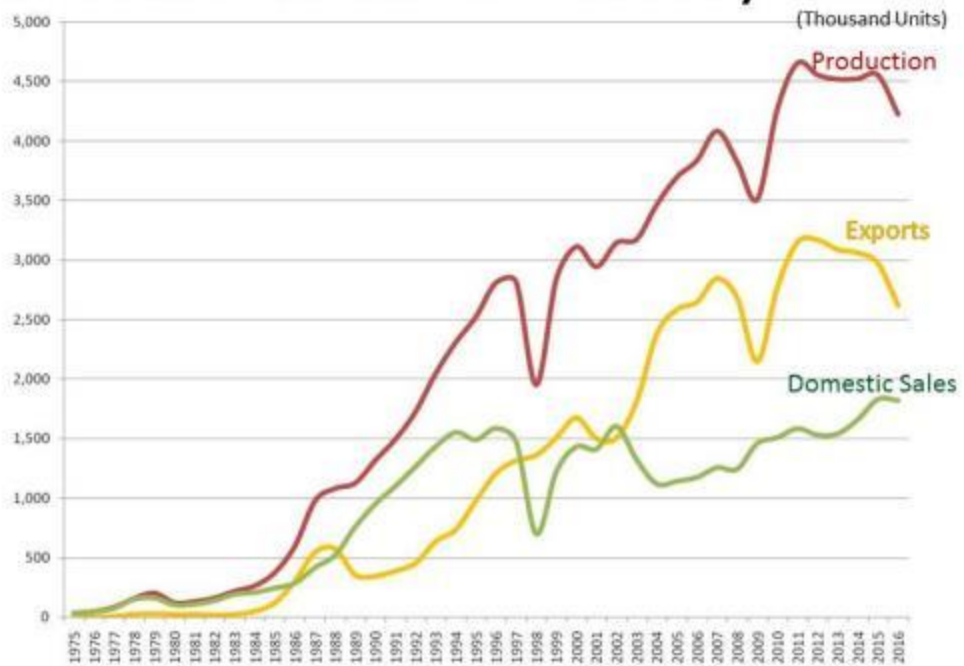
1

Industry Overview

Categories	Total No. of Manufactures/ Companies	Total No. of New Entry Companies in 2016	Total No. of Employment
Automobile Manufacturers	7	0	129,000
Motorcycle Manufacturers	2	0	550
Parts Manufacturers	858	-25	289,000
Direct Importers	14	0	-
Total	881	-25	-

2

Evolution of Korean Auto Industry



Production & Sales

(Thousand Units)

	Production	Domestic Sales	Imports	Exports	Offshore Production
'14	4,524	1,662	219	3,061	4,414
'15	4,556	1,834	284	2,974	4,411
'16	4,229 (-7.2%)	1,838 (-0.2%)	265 (-6.6%)	2,622 (-11.8%)	4,653 (5.5%)
'17F	4,170 (-1.4%)	1,750 (-4.8%)	270 (1.9%)	2,690 (2.6%)	4,900 (5.3%)

Vehicle Tax Structure of Korea

Stages	Type of Taxes
Purchase	Individual Consumption Tax
Registration	Acquisition Tax
Possession	Annual Vehicle Tax
Use	Fuel Excise Tax

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Individual Consumption Tax

Engine Displacements	Tax Rates	Remarks
≤ 1000cc	Exempted	Education Tax : 30% of Individual Consumption Tax
over 1000 cc	5% of ex-factory price	VAT : 10% of (Ex-factory price + Individual Consumption Tax + education tax)

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Acquisition Tax

Type of Vehicles	Tax Rates	Remarks
Passenger Cars	7% of (retail price minus VAT)	Retail price : Ex-factory price + Individual Consumption Tax + Education Tax + VAT
Commercial Vehicles	4% of (retail price minus VAT)	

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Annual Vehicle Tax

Engine Displacements	Tax Rates	Remarks
≤ 1000cc	₩ 80/cc	Education Tax : 30% of Annual Vehicle Tax
1001 ~ 1600cc	₩ 140/cc	
> 1600cc	₩ 200/cc	

* Passenger cars

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Fuel Excise Tax

Type of Fuels	Tax Rates	Remarks
Gasoline	₩ 529/l	Education Tax: 15% of Fuel Excise Tax
Diesel	₩ 375/l	Motor Fuel Tax : 36% of Fuel Excise Tax
LPG	₩ 275/kg	VAT: 10% of (Ex-factory Price + Fuel Excise Tax + Motor Fuel Tax + Education Tax)

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Korean FTA' s (2016)

Economy	Effective Date	Tariff Concession Schedule
Colombia	15 th Jul. 2016	<ul style="list-style-type: none"> • Cars/Trucks : 10 years • Vehicle Components : Immediately or 5 years
Central America (Nicaragua, El Salvador, Honduras, Costa Rica, Panama, Guatemala)	16 th Nov. 2016 (Concluded)	<ul style="list-style-type: none"> • Cars : Immediately ~ 10 years • Vehicle Components : Immediately ~ 7 years

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Free Trade Agreements

- Bilaterals (15):
 - Chile, Singapore, EFTA, ASEAN, India, EU,
 - Peru, US, Turkey, Australia
 - Canada('15), China FTA ('15), New Zealand ('15)
 - Vietnam('15)
 - Colombia('16)
- Concluded(1):
 - Central America('16)
- ❖ Under Negotiation(4): Korea-China-Japan, RCEP, Ecuador, Israel

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EV Market Vitalization Plan

EV Supply expansion: Less consumers' burden and initial market creation

1) Subsidies

- ✓ **Electric passenger car** 14 Mil. Won per car
- Electric bus** 100 Mil. Won per
- ➔ Gradually reduce subsidy
14 Mil. won(2016 → 10 Mil. won(2019-2020)
- ✓ When changing the battery after a warranty period, the government will provide 30% of the battery change cost

2) Tax support

- ✓ Max 4.8 Mil. Won individual consumption tax, acquisition tax, etc.



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Eco car sales in Korea

- Eco-car sales marked all-time high in 2016 due to sales increase in HEV and EV.
- More choices of HEV and EV models released in market led to boost in sales of eco car as a whole.

(units)

	2011	2012	2013	2014	2015	2016	Total
Total	20,552	37,578	28,877	36,932	42,260	45,166	211,365
HEV	20,271	37,030	28,092	35,850	39,398	39,400	200,041
EV	281	548	780	1,075	2,821	5,693	11,198
FCEV	-	-	5	7	41	73	126

五、馬來西亞車輛產業現況簡報資料

26th APEC AD
11th May 2017, Hanoi
Item (4) of the Agenda.

MALAYSIA: INDUSTRY SITUATION & MARKET DEVELOPMENT



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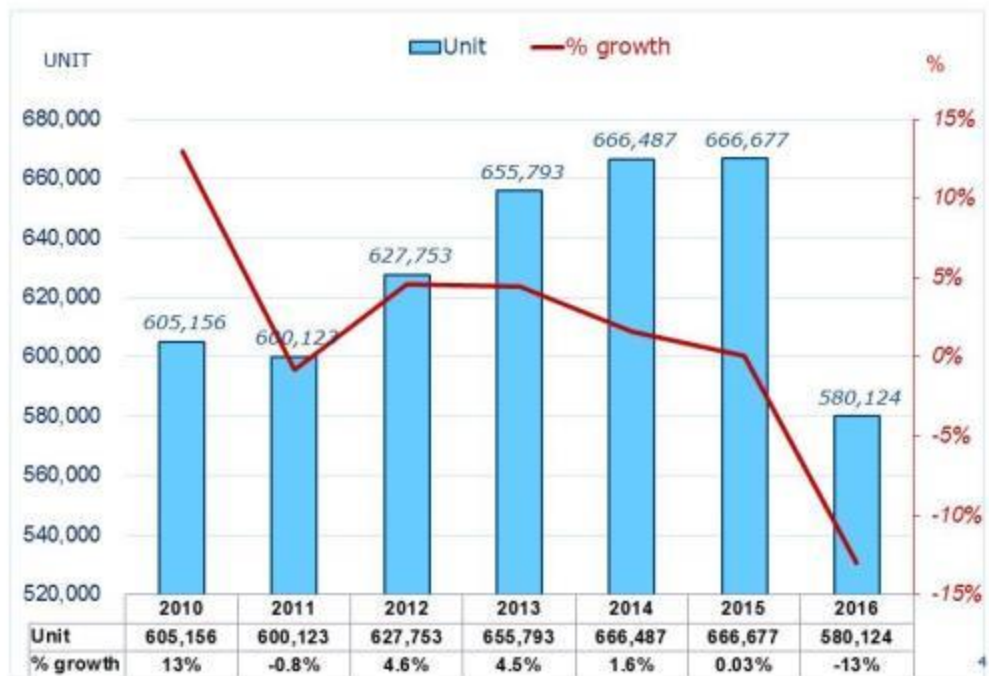
1. Current market situation
2. Market outlook for 2017
3. New / future Government policies

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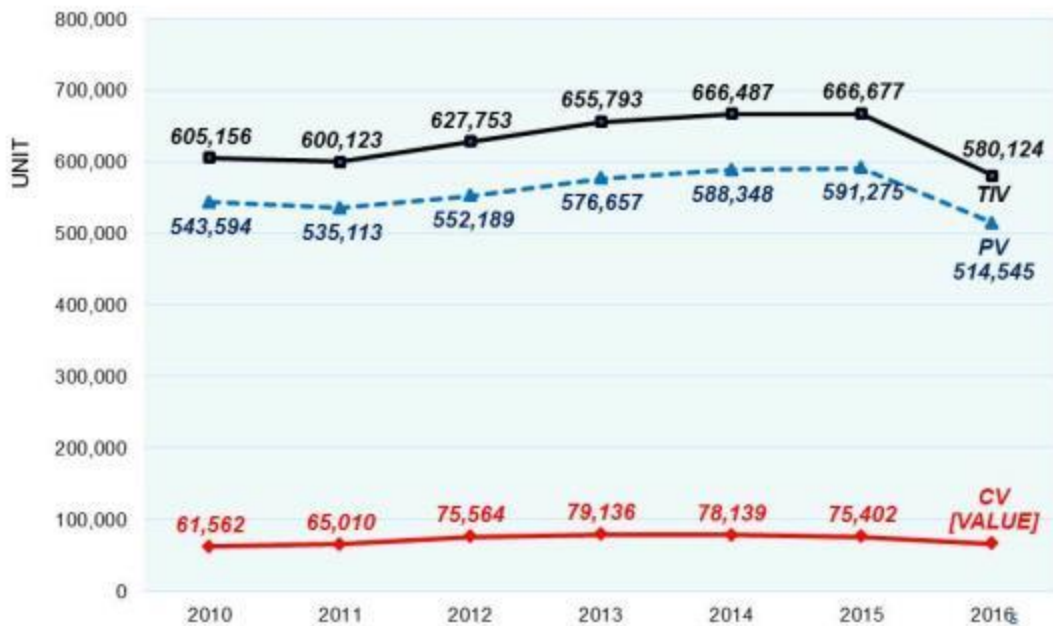
1. Current market situation

3

MALAYSIA: TIV 2010 TO 2016



MALAYSIA: TIV 2010 TO 2016; by type of vehicle



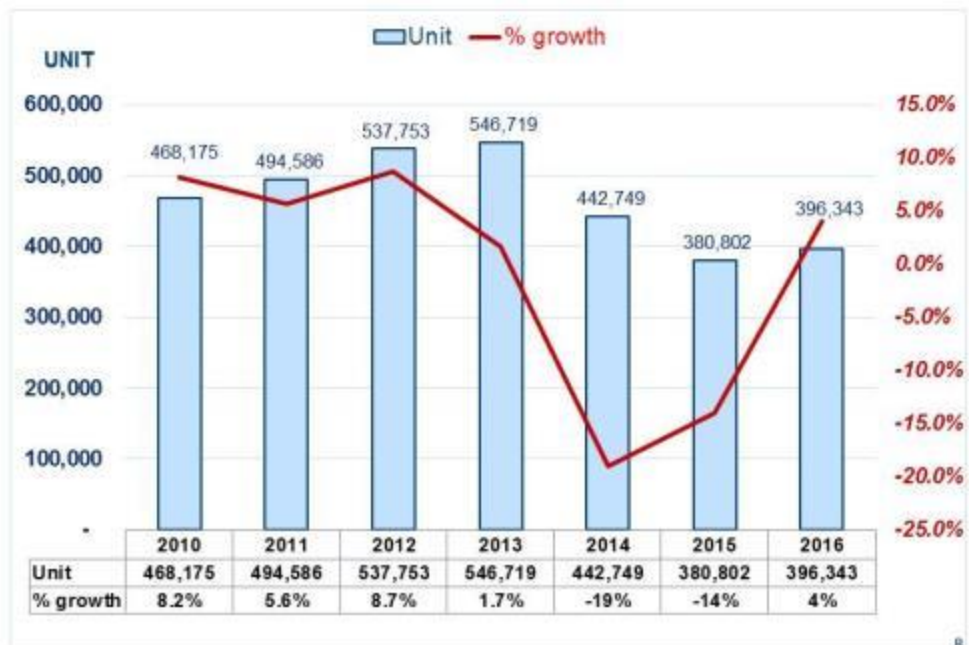
MALAYSIA: LATEST TIV BY TYPES OF VEHICLES

SEGMENT	YEAR-TO-DATE MARCH			
	2017	2016	Variance	
			units	%
Total Industry Volume (TIV)	140,839	131,251	9,588	7.3
Passenger Vehicles:	127,530	117,084	10,446	8.9
PC (Passenger Cars)	92,587	88,597	3,990	4.5
WV (Window Vans)	962	736	226	30.7
MPV (Multi-Purpose Vehicles)	20,919	11,898	9,021	75.8
4x4/SUV (Four Wheel Drive / Sports Utility Vehicles)	13,062	15,853	(2,791)	(17.6)
Commercial Vehicles:	13,309	14,167	(858)	(6.1)
PV (Panel Vans)	795	667	128	19.2
PU (Pick Ups)	9,477	9,701	(224)	(2.3)
Trucks	2,725	3,347	(622)	(18.6)
PM (Prime Movers)	216	273	(57)	(20.9)
Bus	96	179	(83)	(46.4)

MALAYSIA: PRODUCTION BY TYPES OF VEHICLE

SEGMENT	YEAR-TO-DATE MARCH			
	2017	2016	Variance	
			units	%
Total Industry Production (TIP)	138,015	129,591	8,424	6.5
Passenger Vehicles:	128,283	121,980	6,303	5.2
PC (Passenger Cars)	93,650	91,096	2,554	2.8
WV (Window Vans)	487	1,471	(984)	(66.9)
MPV (Multi-Purpose Vehicles)	14,276	11,336	2,940	25.9
4x4/SUV (Four Wheel Drive / Sports Utility Vehicles)	19,870	18,077	1,793	9.9
Commercial Vehicles:	9,732	7,611	2,121	27.9
PV (Panel Vans)	316	387	(71)	(18.3)
PU (Pick Ups)	5,471	3,839	1,632	42.5
Trucks	3,663	3,167	496	15.7
PM (Prime Movers)	171	121	50	41.3
Bus	111	97	14	14.4 ⁷

MOTORCYCLE SALES 2010 TO 2016



MOTORCYCLE PERFORMANCES

	YEAR-TO-DATE MARCH			
	2017 (UNITS)	2016 (UNITS)	VARIANCE	
			UNITS	%
SALES	108,222	106,224	1,998	1.9
PRODUCTION	108,035	104,469	3,566	3.4

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4. Market Outlook 2017

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MARKET PROSPECTS 2017

Malaysia's GDP Growth

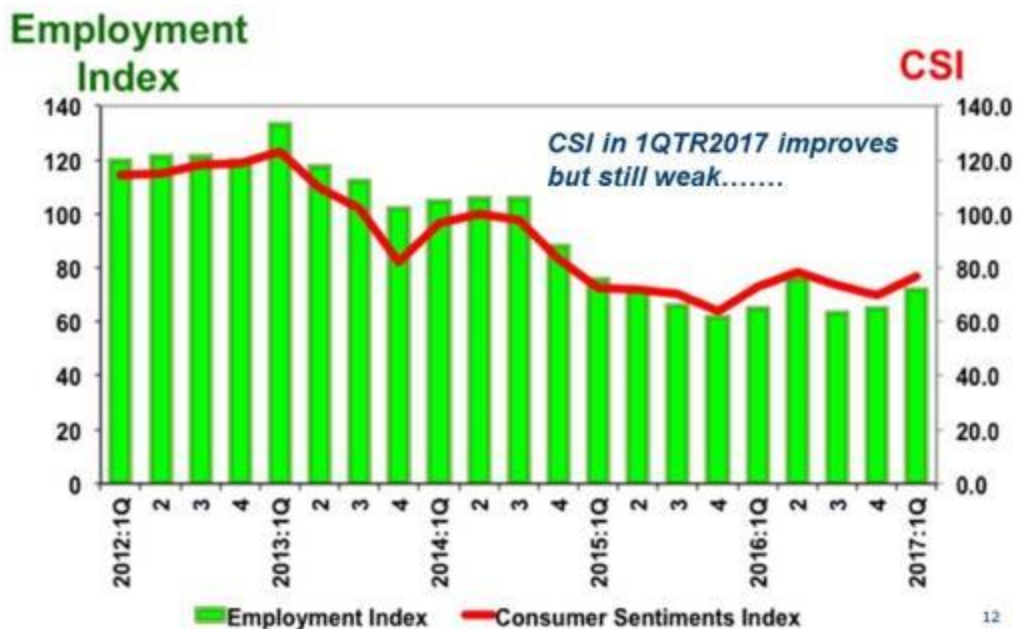
2016 (actual) : 4.2%

2017 (forecast) : 4.3% to 4.8%



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MARKET PROSPECTS 2017



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MARKET OUTLOOK 2017

	2017 FORECAST	2016 ACTUAL	VARIANCE	
			UNITS	%
PASSENGER VEHICLES	522,000	514,545	7,455	1.4
COMMERCIAL VEHICLES	68,000	65,579	2,421	3.7
TOTAL VEHICLES	590,000	580,124	9,876	1.7

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CONTENTS

3. Government policies

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1. NEW GOVERNMENT POLICIES

a) New Energy Efficient Vehicle (EEV) Application Process Flow

With effect from **1 April 2017**, applications will be send to directly to MITI.

- *RTD's role: to carry out tests and verification of vehicles according to R101 or Road Transport Act 1987.*
- *MAI's role: to conduct Cost-Benefits Analysis for customised incentives under NAP 2014*

Previously, application for EEV is handled by the Road Transport Department (RTD) and the EEV certificate is issued by RTD after the model has received VTA approval.

The reasons for coming up with the new process are to improvise the existing process and for better monitoring in line with NAP 2014. 15

1. NEW GOVERNMENT POLICIES (cont...)

b) Electronic Stability Control (ESC)

Fitment of ESC for new model of motor vehicles in Malaysia.

- *from 1 June 2018.*
- *mandatory for M1 and N1 category.*
- *fitted by OEMs.*

M1: Passenger Vehicle with not more than 8 seats in addition to the driver's
N1: Goods vehicle and having a maximum mass not exceeding 3.5 tonnes.

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1. NEW GOVERNMENT POLICIES (cont...)

c) Introduction of 4R2S standard for auto aftermarket

- c) Launched in November 2016
- d) The “4R” refers to the code of practice for aftermarket parts supply chain for recycled parts and components -- Reuse, Repair, Remanufacture and Recycle.
- e) The “2S” covers the code of standard practices for the aftermarket Service and Spare parts providers.

17

2. PLANNED GOVERNMENT POLICIES

(a) Update on Biodiesel B10

- *Biodiesel B7 had been implemented in phases since November 2014.*
- *The Government is planning to implement the use of B10 for transport sector. The exact implementation date has yet to be confirmed.*

18

(b) New UN Regulations to be implemented by 2020

	New Models to comply from	Existing Models to comply by
22 UN Regulations <ul style="list-style-type: none">• 11 Regulations applicable to M, N, O categories• 9 Regulations applicable to motorcycles.• 2 Regulations applicable to aftermarkets	1 st July 2017	1 st July 2019
19 UN Regulations <ul style="list-style-type: none">• 17 Regulations applicable to M, N, O categories• 2 Regulations applicable to motorcycles	1 st Jan 2020	1 st Jan 2022

19

1. NEW GOVERNMENT POLICIES (cont...)

c) Emergency Call Initiative (eCall)

Fitment of e-Call device for new models of motor vehicles in Malaysia.

Automatic emergency call to MERS 999

[Malaysia Emergency Response Services]

20

六、俄羅斯車輛產業現況簡報資料



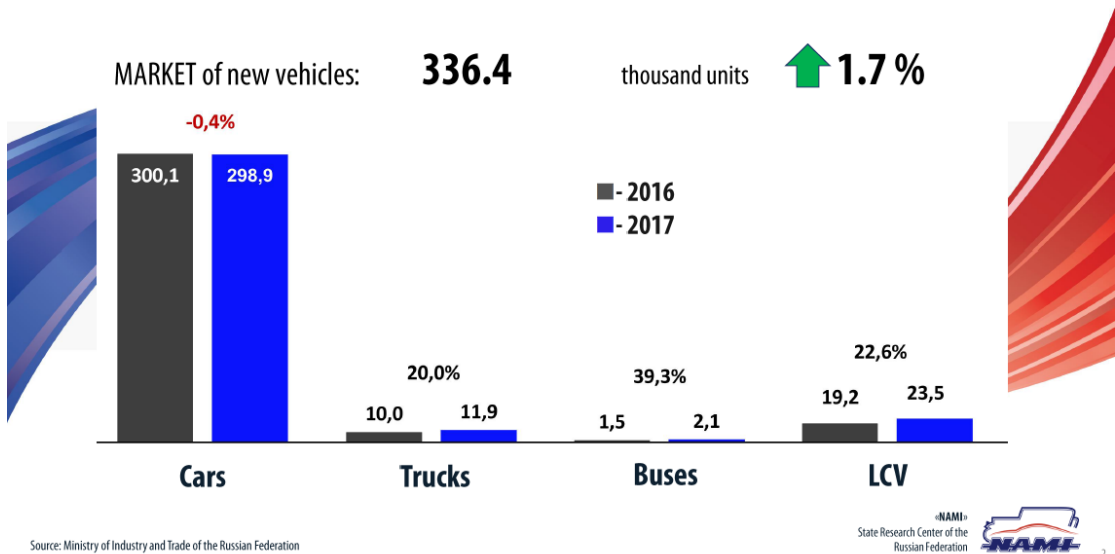
Russian Automotive Industry Market Situation

SERGEY ANIKEEV
26th APEC Automotive Dialogue
Ha Noi, Viet Nam
2017

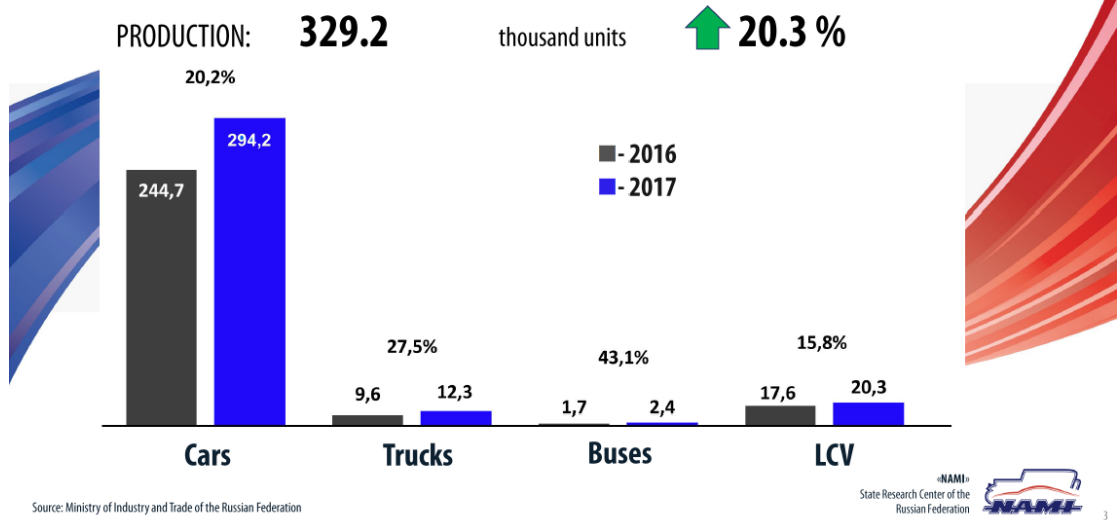
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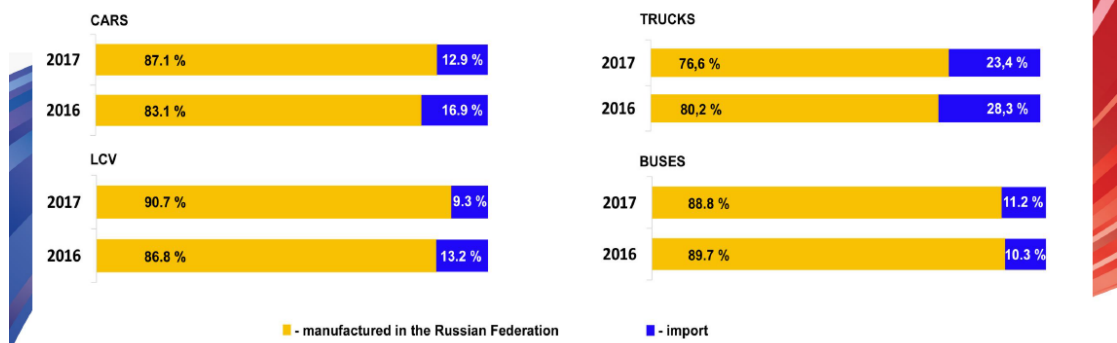
Industry Overview



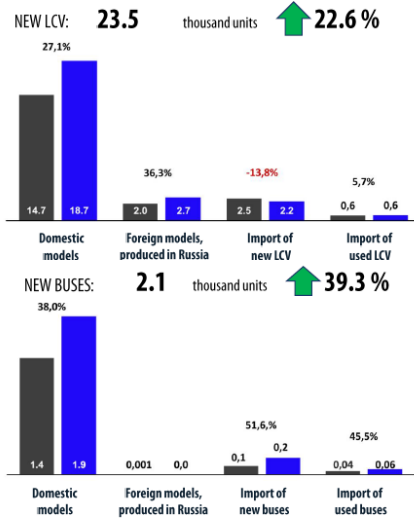
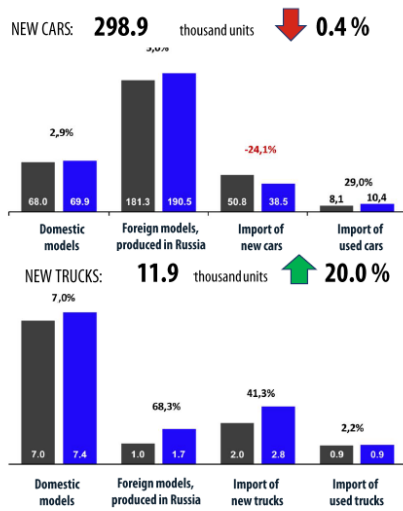
Industry Overview



STRUCTURE OF RUSSIAN AUTOMOTIVE MARKET



STRUCTURE OF RUSSIAN AUTOMOTIVE MARKET

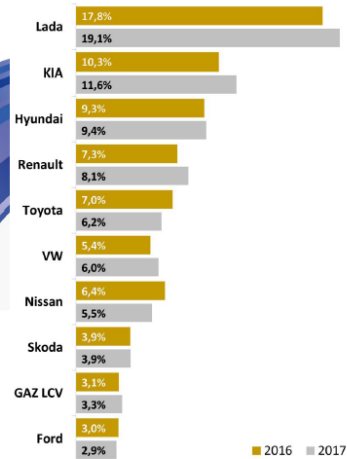


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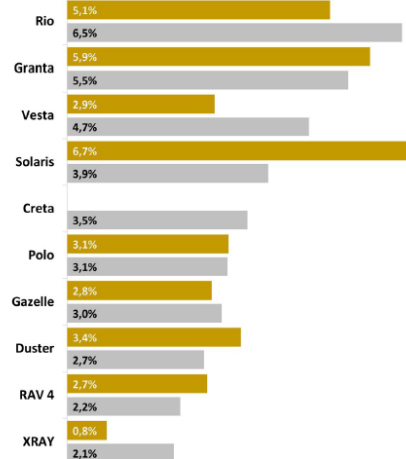
5

The structure of sales by brand and model

TOP 10: by brand 75.9%



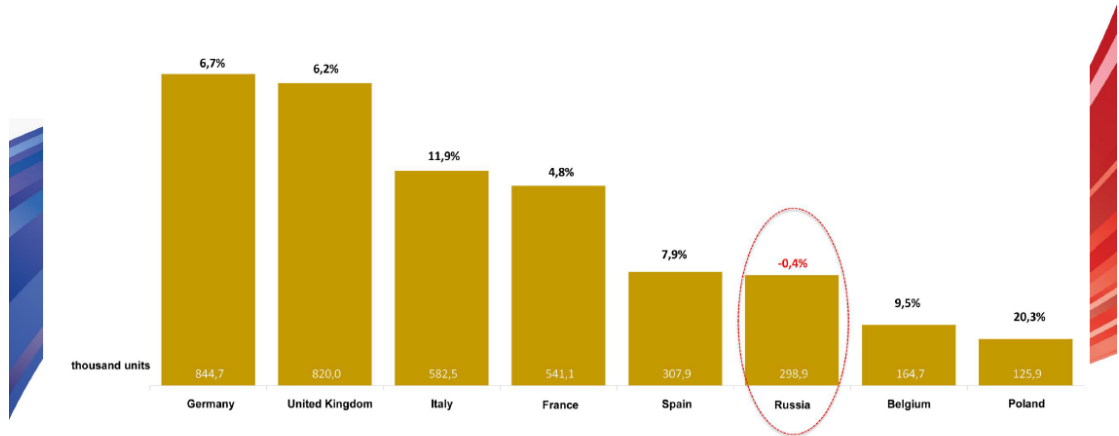
by model 37.3%



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6

Dynamics of European markets of cars in 2017



七、美國車輛產業現況簡報資料



Automotive Dialogue

UNITED STATES OF AMERICA AUTOMOTIVE INDUSTRY & MARKET

26TH APEC AUTOMOTIVE DIALOGUE

HANOI, VIETNAM

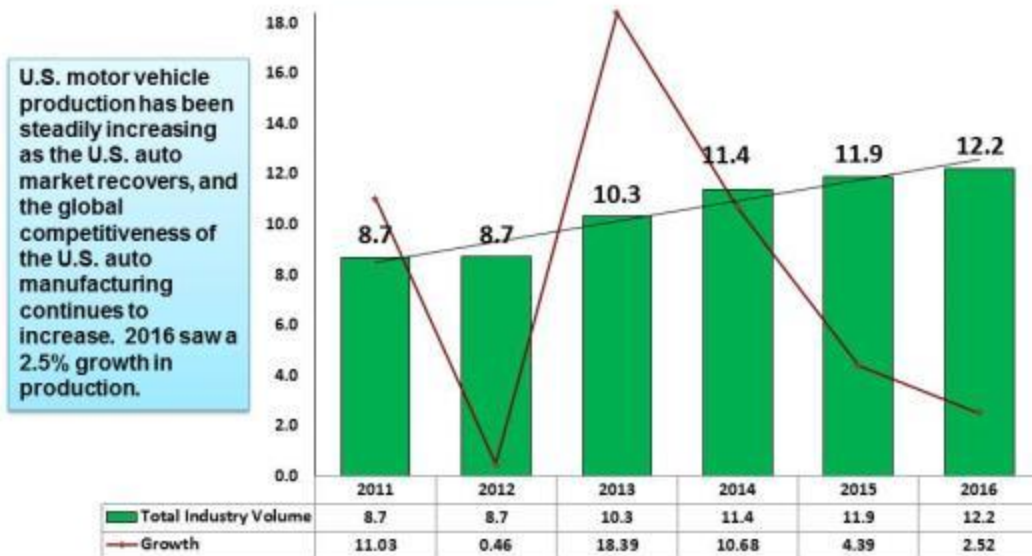
MAY 11, 2017



Industry Overview

Motor Vehicle Production

By Units



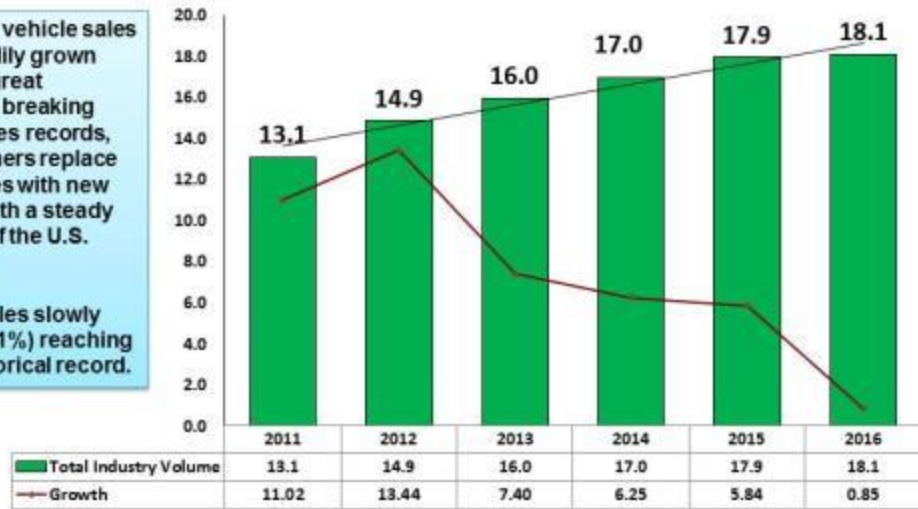
By Units

Industry Overview

Motor Vehicle Sales By Units

U.S. motor vehicle sales have steadily grown since the great recession-breaking annual sales records, as consumers replace old vehicles with new coupled with a steady recovery of the U.S. economy.

In 2016, sales slowly grew (abt. 1%) reaching a new historical record.



By Units

Industry Overview

Motor Vehicle Exports BY VALUE

U.S. motor vehicle EXPORTS BY VALUE is down 6.8% in 2015, after a steady rise in exports from 2008-2014. In 2016, U.S. exports are slightly up (abt. 1%).

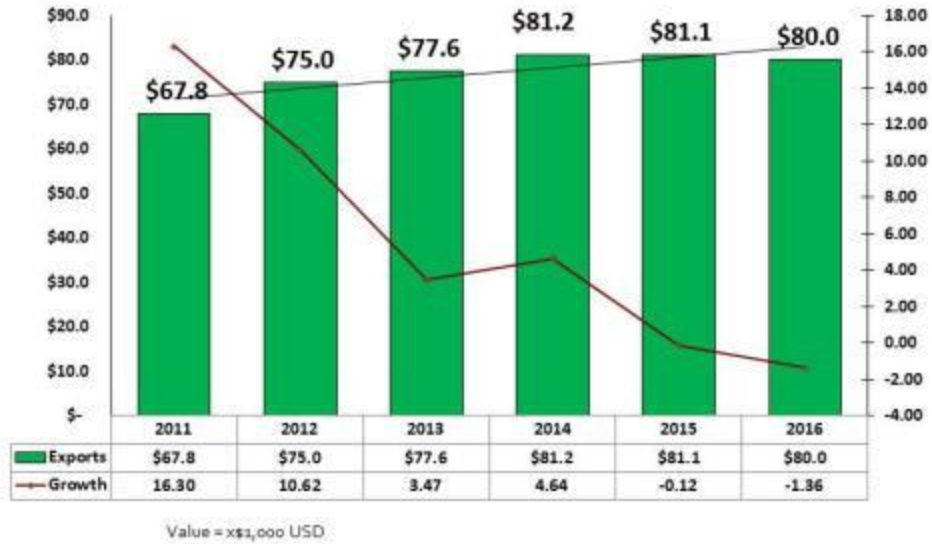


Value = x\$1,000 USD

Industry Overview

Auto Parts Exports

U.S. auto parts EXPORT have grown slowly from 2011-2014. In 2015 auto parts exports essentially flattened out at about \$81 billion annually and drop to \$80 billion in 2016.

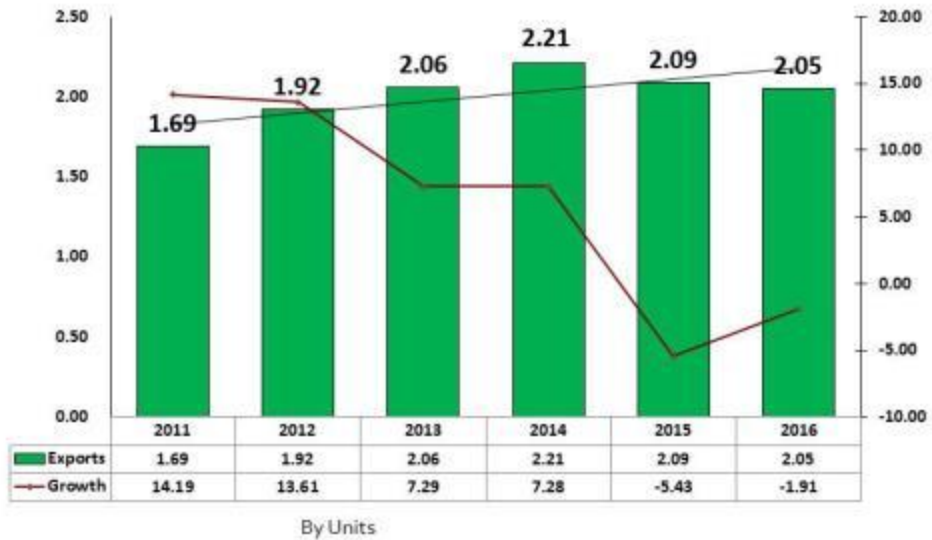


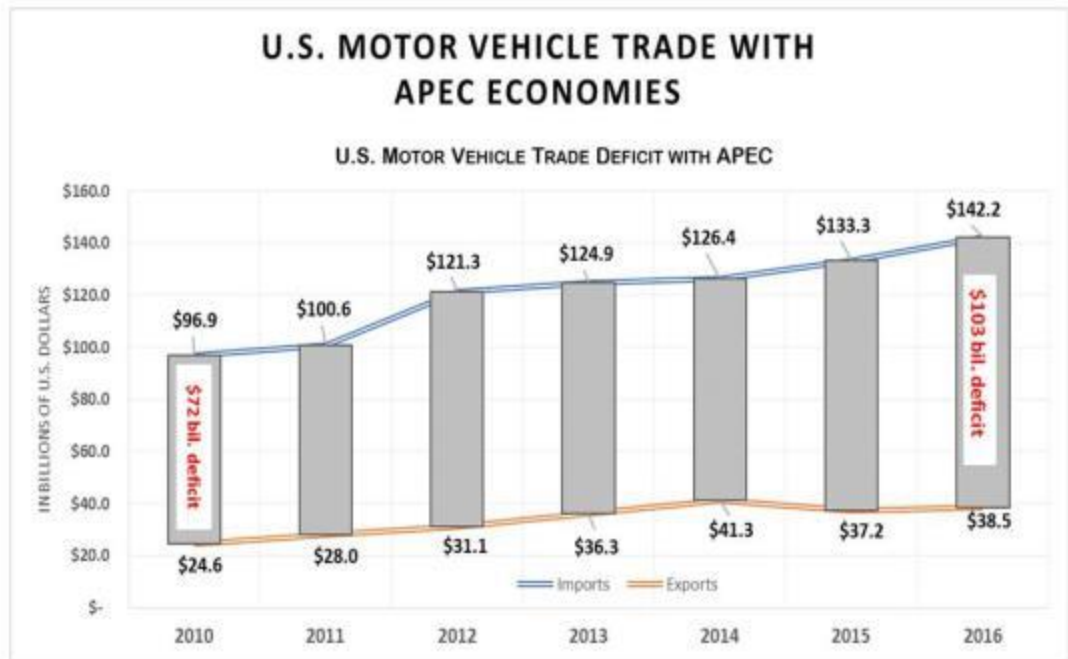
Industry Overview

Motor Vehicle Exports

BY UNITS

U.S. motor vehicle exports BY UNITS dropped in 2015 by nearly 6%, but only dropped 2% in 2016. this is in part due to the strength of the US\$.





Free Trade Agreements

REGIONAL (2 agreements- NAFTA, CAFTA with 8 economies)

Canada, Mexico, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, as well as the Dominican Republic)

BILATERALS (11 economies):

Israel, Jordan, Australia, Chile, Singapore, Bahrain, Morocco, Oman, Peru, Panama, Colombia and Korea

UNDER NEGOTIATION/PENDING (1 agreement- with 27 economies):

Transatlantic Trade and Investment Partnership (EU-28) now 27 with Brexit

Tax Structure

Vehicle Type	TARIFFS	LOCAL TAXES		
	Duty Assessed	Excise Duties	GST	Other Taxes (Please specify)
Passenger Vehicles (Cars, SUVs, Minivans)	2.5%	None	None	Each of the 50 states impose their own sales taxes (ranging from 0% to 8.25%) and registrations fees (ranging from \$30 to \$320) for new cars/trucks.
Road Tractors	4%			
Buses	2%			
Truck Cab Chassis (diesel 5-20 mt)	4%			
Commercial Vehicles (Trucks- incl. pickups)	25%			

Free Trade Agreements – Auto Industry

Duties under FTAs – Tariff phase down has been fully implemented with all FTA partners but Korea.

Tariff phase down for Korea- see below:

Category		BASE (MFN)	2016	2017	2018	2019	2020
CBU	Passenger Car	2.5%	0%	0%	0%	0%	0%
	Commercial Vehicle	25%	25%	25%	25%	17%	9%
	Bus	2%	0%	0%	0%	0%	0%
	Motorcycle	2.4%	0%	0%	0%	0%	0%
Parts		2.5% avg.	0%	0%	0%	0%	0%

Trump Administration has expressed an interest in reviewing/ renegotiating KORUS.

Automotive Policies and Regulations

- **Regulatory Reduction:** President Trump signed Executive Order 13777 (Enforcing the Regulatory Reform Agenda) requesting U.S. government agencies to identify regulations that are redundant and over burdensome that should be repealed, modified or replaced. As part of this process, each U.S. government agency is required to solicit input for state and local governments, and private entities. Many automakers are reviewing regulations and developing recommendations to provide U.S. government agencies.
- **Fuel Economy and Greenhouse Gas:** For the 2017-2025 light duty vehicle fuel economy and greenhouse gas regulations, the U.S. created what is referred to as “One National Program” – an attempt to coordinate the two federal and one state (California) programs.
- Since the targets were set so far into the future 2022-2025, one key element was conducting a “mid-term review” of the last four years to see if adjustments to the stringency of those years were appropriate.
- The first step in mid-term review occurred with the July 2016 issuance of a draft Technology Assessment Report (TAR) by the U.S. regulatory agencies - the U.S. Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) that examines a wide range of issues relevant to the 2022-2025 standards. The TAR comments were submitted in December 2016 by various stakeholders.

Automotive Policies and Regulations- Cont'd.

- On January 12, 2017 EPA made the Final Determination that no change is needed to the 2022-25 standards.
- CARB accepted the EPA determination of the 2022-25 standards on March 24, 2017.
- NHTSA is still analyzing the Draft TAR comments submitted by various stakeholders and running modeling analysis and evaluating to see if 2022-25 standards should continue or change (no decision yet).
- On March 15, 2017, President Trump announced the cancellation of the EPA rushed decision on the Final Determination.
- On March 22, 2017 EPA announced its intention to reopen the Final Determination of the Mid-Term Evaluation of greenhouse gas (GHG) standards for model year (MY) 2022–2025 for a re-review intended to be completed by April 2018.
- At this time, automakers are awaiting further guidance from the U.S. EPA on the re-review of the Mid-Term Evaluation.
- The U.S. EPA had proposed new regulations for heavy duty trucks. This is important to the domestic auto industry because majority of the heavy duty vehicles are produced in the U.S. Like with passenger vehicles, the industry has recommended one national program (ONP), and requires appropriate compliance flexibilities and adequate lead time for new technologies. U.S. EPA, NHTSA, and CARB finalized the phase 2(2019-27) of these regulations in 2016 (note that phase 1 (2014-18) was also ONP that was issued in 2011).

ANNEX

U.S.-APEC Trade DATA

U.S. Motor Vehicle Trade with APEC									US-APEC
New Passenger Vehicle (Car/Truck) in US \$									New PV car/truck \$
Exports (Value)									Exports
Economy	2010	2011	2012	2013	2014	2015	2016	Percent Change	Percent Change
	In 1,000 Dollars USD								2010-2016
Australia	471,495	735,422	1,081,055	1,388,251	1,847,648	1,649,201	1,299,045	-21.2%	176%
Brunei	3,374	2,975	5,109	5,975	4,548	5,095	1,805	-64.6%	-47%
Canada	16,995,720	17,902,530	18,776,537	20,348,262	21,865,353	21,023,691	22,073,247	5.0%	30%
Chile	359,713	438,774	440,786	551,589	442,867	370,393	342,729	-7.5%	-5%
China	2,921,383	4,306,360	4,959,653	7,531,612	9,942,175	8,321,956	8,220,728	-1.2%	181%
Hong Kong	76,336	96,111	86,609	87,166	163,407	230,370	237,543	3.1%	211%
Indonesia	4,309	25,367	39,810	69,217	30,784	19,938	10,153	-49.1%	136%
Japan	195,265	336,798	503,077	461,660	546,549	521,096	444,065	-14.8%	127%
Korea	313,070	369,577	570,039	713,276	943,071	1,234,510	1,554,840	25.9%	397%
Malaysia	216	1,114	735	1,300	4,142	6,726	1,266	-81.2%	486%
Mexico	2,842,508	3,174,225	3,607,342	3,631,802	3,540,273	3,084,267	3,604,901	16.9%	27%
N. Zealand	35,206	55,764	84,285	79,505	174,343	161,613	162,787	0.7%	362%
PNG	0	0	215	0	0	0	0	NA	NA
Peru	92,924	95,033	128,345	123,855	141,061	134,222	125,308	-6.6%	35%
Philippines	36,835	51,079	77,953	78,089	53,780	73,931	61,643	-16.6%	67%
Russia	106,149	308,273	648,273	1,136,573	1,405,488	244,587	152,644	-37.6%	44%
Singapore	6,280	5,370	8,938	9,331	8,547	3,978	3,621	-9.0%	-42%
Chinese Taipei	66,176	28,562	40,534	81,535	85,685	65,575	67,174	2.4%	2%
Thailand	6,300	6,638	9,781	19,487	24,703	11,542	13,449	16.5%	113%
Vietnam	22,851	59,592	38,912	14,129	29,568	54,133	86,208	59.3%	277%
Total	24,556,112	27,999,564	31,107,987	36,332,613	41,253,992	37,216,825	38,463,156	3.30%	57%

U.S. Motor Vehicle Trade with APEC									US-APEC	
New Passenger Vehicle (Car/Truck) in US #									New PV car/truck \$	
Exports (Units)									Exports	
Economy	2010	2011	2012	2013	2014	2015	2016	Percent Change	Percent Chg.	
	In Units								2010-2016	
Australia	16,736	25,756	34,903	46,534	62,325	60,397	45,332	-24.9%	171%	
Brunei	132	111	179	197	158	149	55	-63.1%	-58%	
Canada	720,428	736,942	748,110	797,685	880,079	905,157	914,100	1.0%	27%	
Chile	16,860	18,858	19,178	23,270	18,538	14,950	13,545	-9.4%	-20%	
China	100,033	136,227	168,063	246,205	314,580	255,942	236,798	-7.5%	137%	
Hong Kong	2,270	3,095	2,696	2,290	3,760	3,733	3,742	0.2%	65%	
Indonesia	130	920	1,356	2,262	1,089	676	328	-51.5%	152%	
Japan	7,555	14,051	20,393	17,689	20,301	18,760	17,264	-8.0%	129%	
Korea	13,581	14,691	22,620	28,090	35,498	48,307	56,801	17.6%	318%	
Malaysia	12	44	38	75	182	288	46	-84.0%	283%	
Mexico	140,464	153,902	173,146	168,538	170,310	149,502	174,836	16.9%	24%	
N. Zealand	1,281	1,864	2,580	2,412	5,382	5,933	5,730	-3.4%	347%	
PNG	0	0	9	0	0	0	0	NA	NA	
Peru	4,471	4,022	5,146	4,755	6,515	6,021	5,577	-7.4%	25%	
Philippines	1,441	1,929	2,956	3,111	2,143	3,018	2,340	-22.5%	62%	
Russia	3,429	9,673	22,891	49,234	61,657	8,008	4,840	-39.6%	41%	
Singapore	216	189	318	273	253	110	116	5.5%	-46%	
Chinese Taipei	4,088	1,147	1,349	2,632	2,595	2,041	1,694	-17.0%	-59%	
Thailand	216	257	417	759	696	334	415	24.3%	92%	
Vietnam	783	2,017	1,075	386	693	1,141	1,918	68.1%	145%	
Subtotal number	1,034,126	1,125,695	1,227,423	1,396,397	1,586,754	1,484,467	1,485,477	0.07%	44%	

U.S. Motor Vehicle Trade with APEC									US-APEC	
New Passenger Vehicle (Car/Truck) in US \$									New PV car/truck \$	
Imports (Value)									Exports	
Economy	2010	2011	2012	2013	2014	2015	2016	Percent Change	Percent Change	
	In 1,000 Dollars USD \$								2015-2016	2010-2016
Australia	3,945	50,817	70,921	158,488	162,769	143,485	109,386	-23.76%	2673%	
Canada	35,818,202	38,343,734	45,334,797	43,332,601	42,855,260	41,934,533	44,805,549	6.85%	25%	
China	10,047	6,673	12,249	7,522	20,966	106,627	1,078,594	911.56%	10635%	
Indonesia	0	0	0	12	23	0	0	NA	NA	
Japan	31,893,664	29,904,054	37,659,177	37,762,016	33,871,909	35,714,706	39,174,299	9.69%	23%	
Korea	6,549,528	8,610,932	10,619,175	12,144,484	14,572,995	17,276,201	16,068,364	-6.99%	145%	
Malaysia	0	0	0	0	0	34	0	-100.00%	NA	
Mexico	22,600,058	23,633,277	27,642,493	31,418,055	34,765,986	37,941,550	40,828,314	7.61%	81%	
N. Zealand	3	22	55	0	6	192	61	-68.23%	1933%	
PNG	0	0	0	0	0	0	0	NA	NA	
Philippines	0	0	6	0	0	0	6	NA	NA	
Russia	28	85	0	602	19	117	46	-60.68%	64%	
Singapore	0	0	0	11	0	0	45	NA	NA	
Chinese Taipei	381	184	23	390	278	36	310	761.11%	-19%	
Thailand	29	1,364	697	72,669	179,858	196,170	116,978	-40.37%	403272%	
Vietnam	0	0	7	0	22	0	0	NA	NA	
Total	96,875,885	100,551,142	121,339,600	124,896,850	126,430,091	133,313,651	142,181,952	6.65%	47%	

U.S. Motor Vehicle Trade with APEC									US-APEC
New Passenger Vehicle (Car/Truck) in US #									New PV car/truck \$
Imports (Units)									Exports
Economy	2010	2011	2012	2013	2014	2015	2016	Percent Change	Percent Change
	<i>In Units</i>								2010-2016
Australia	112	2,338	3,117	5,761	5,784	4,527	3,384	-25.20%	2921%
Canada	1,742,377	1,834,905	2,097,849	2,011,197	2,024,125	1,950,749	1,985,683	1.80%	14%
China	1,828	828	892	482	1,067	4,183	45,979	999.20%	2415%
Indonesia	0	0	0	1	1	0	0	NA	NA
Japan	1,543,370	1,421,352	1,722,327	1,721,264	1,528,832	1,605,625	1,707,298	6.30%	11%
Korea	515,535	587,328	704,745	759,594	894,535	1,065,711	1,000,869	-6.10%	94%
Malaysia	0	0	0	0	0	1	0	-100.00%	NA
Mexico	1,219,872	1,299,303	1,438,048	1,598,056	1,895,375	2,087,345	2,177,000	4.30%	78%
N. Zealand	1	5	5	0	1	15	2	-86.70%	100%
Philippines	0	0	1	0	0	0	1	NA	NA
Russia	1	2	0	15	3	12	15	25.00%	1400%
Singapore	0	0	0	1	0	0	1	N/A	NA
Chinese Taipei	84	25	3	37	31	6	24	300.00%	-71%
Thailand	4	40	28	7,751	19,601	20,868	12,127	-41.90%	303075%
Vietnam	0	0	1	0	1	0	0	N/A	NA
Subtotal number	5,023,184	5,146,126	5,967,016	6,104,159	6,369,356	6,739,042	6,932,383	2.87%	38%

八、越南車輛產業現況簡報資料

Viet Nam Automotive Industry Market Situation

26th APEC Automotive Dialogue

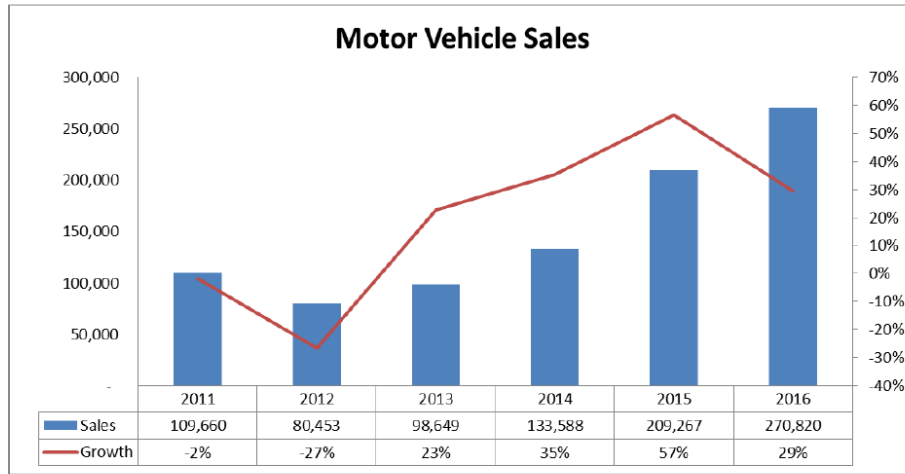
Hanoi, Viet Nam

11 May 2017

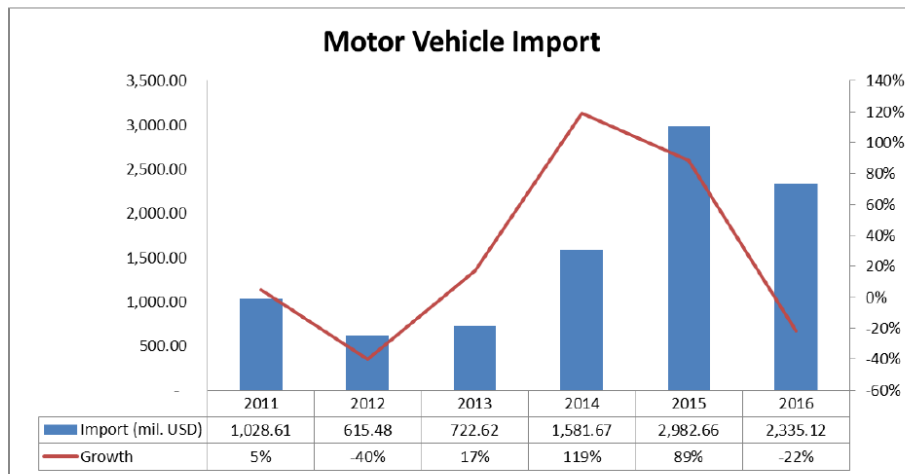
Industry Overview

Categories	No. of manufacturing	No. of employees
Automobile manufacturers	57 (20 VAMA members)	14,146
Auto Parts manufacturers	298	84,564
Others	61	4,072
Total	416	102,782

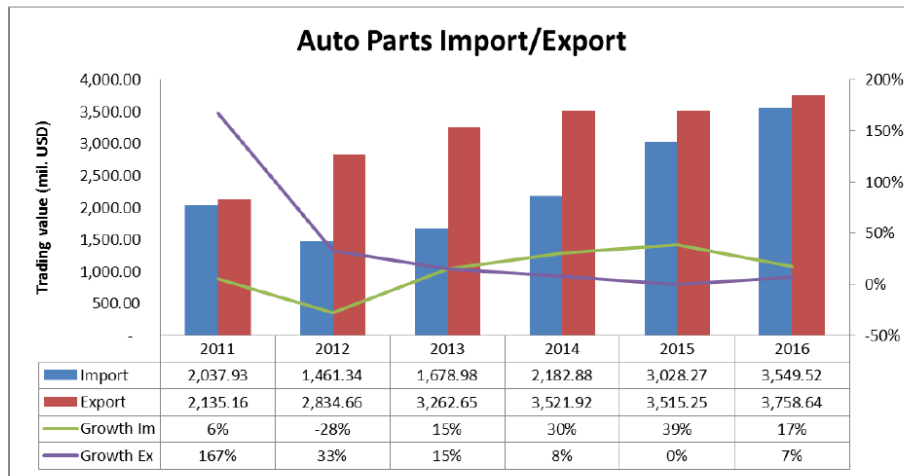
Industry Overview



Industry Overview



Industry Overview



Free Trade Agreements – Auto Ind.

FTAs signed

- ASEAN
- Viet Nam – Japan
- Viet Nam – Chile
- Viet Nam – Korea
- TPP
- Viet Nam - Eurasian Economic Union
- Viet Nam – EU

FTAs under negotiation

- RCEP (ASEAN+6)
- Viet Nam – Israel
- Viet Nam – EFTA

Tax and Fee Structure

Stages	Type of Taxes/Fees	Tax/Fee rates (%)		
On acquisition	Special Consumption Tax	PV < 1.5l	40	35 (from 1 Jan 18)
		PV 1.5l – 2.0l	45	40
		PV 2.0l – 2.5l	50	50
		PV > 2.5l	55 – 150	60 – 150
		Bus < 16 seats	15	15
		Bus 16 – < 24 seats	10	10
	Value Added Tax	10		
Registration	Ownership Tax	10-15		
	Registration Fee	200k – 20 mil VND		
While in use	Quality check Fee	300k – 500k VND (periodical, by vehicle types and years in use)		
	Road Maintenance Fee	1 -2 mil. VND/year		
	Compulsory Insurance	400k – 500k VND/year		
	Other fees	Non-compulsory insurance, highway fees...		

Market Outlook

	2016 Actual	2017 Forecast	Projected Growth Rate
Total Industry Volume	270,820	335,140	23%
Passenger Vehicles	158,097	196,040	24%
Commercial Vehicles	112,723	139,100	23%

Automotive Policy and Regulations

- Tax and tariff:
 - From 1 Jan 2018: Reduce SCT for PV < 2.0 liters
 - Consider reducing tariff on auto parts
- Emission Standard:
 - From 1 Jan 2017: Euro 3 for motorcycles and Euro 4 for passenger vehicles;
 - From 1 Jan 2022: Euro 5 for passenger vehicles (PM Decision 49/2011/QD-TTg dated 1 Sep 2011)

4R2S

the Aftermarket Standards

BACKGROUND of MALAYSIA AUTOMOTIVE INSTITUTE (MAI)

- MAI, incorporated on 16 April 2010, is an agency under Ministry International Trade and Industry (MITI).
- A think tank, tasked to strengthen the automotive Industry.
- An Intermediary among stakeholders in automotive communities in Malaysia and overseas.
- Formulation and recommendation of policies.
- Development of capacity building including
 - ✓ Human Capital Development;
 - ✓ Technology Development; and
 - ✓ Supply Chain Development



SCOPE

The scope of work includes both:

A. MANUFACTURING SECTOR

1. Motor Vehicles covering passenger and commercial vehicles



2. Motorcycles
3. Parts and Components related to the above

B. SALES AND AFTER SALES & SERVICE SECTOR

1. Dealers and Distribution
2. Servicing
3. Recycling
4. Remanufacturing

3

NATIONAL AUTOMOTIVE POLICY (NAP) 2014

Promote Energy Efficient Vehicles (EEV) with high technology uptake among industry players especially vendor community in Malaysia and ASEAN.

DIRECTION	Investment	Technology & Engineering	Market Expansion & Outreach
	<input type="checkbox"/> Hub for Energy Efficient Vehicles	<input type="checkbox"/> In line with Latest Technology	<input type="checkbox"/> Manufacturing & After Sales
STRATEGIES	Supply Chain Development		Human Capital Development
	<input type="checkbox"/> Global Efficiency and Effectiveness		<input type="checkbox"/> Adequate & competent manpower
	Safety, Security & Environment		
	<input type="checkbox"/> Whole Type Vehicle Approval	<input type="checkbox"/> Carbon Reduction	
	<input type="checkbox"/> Anti Theft	<input type="checkbox"/> Fuel Efficiency	
	<input type="checkbox"/> Telematics	<input type="checkbox"/> Preserving Natural Resources	

4

ENERGY EFFICIENT VEHICLES (EEV)

DEFINITION OF ENERGY EFFICIENT VEHICLE

EEV is defined as vehicles that meet a set of define specification in terms of carbon emission level (g/km) and fuel consumption (l/100km). EEV includes fuel efficient vehicles, hybrid, EV and alternatively fuelled vehicles e.g. CNG, LPG, Biodiesel, Ethanol, Hydrogen and Fuel Cell.



NAP 2014 ROADMAPS

- Malaysia Automotive Technology Roadmap (MATR)
- Malaysia Automotive Supply Chain Development Roadmap (MASCR)
- Malaysia Automotive Human Capital Development Roadmap
- Malaysia Automotive Remanufacturing Roadmap (MARR)
- Malaysia Automotive Authorized Treatment Facilities (ATF) Framework
- Malaysia Automotive Bumiputera Development Roadmap (MABR)

MALAYSIA GOVERNMENT INITIATIVES TOWARD SUPPORTING GREEN TECHNOLOGY



- Malaysia Government has pledged to **reduce greenhouse gases** by 40% of year 2005 levels by the year 2020 during the UN Climate Change Summit, Copenhagen in 2009

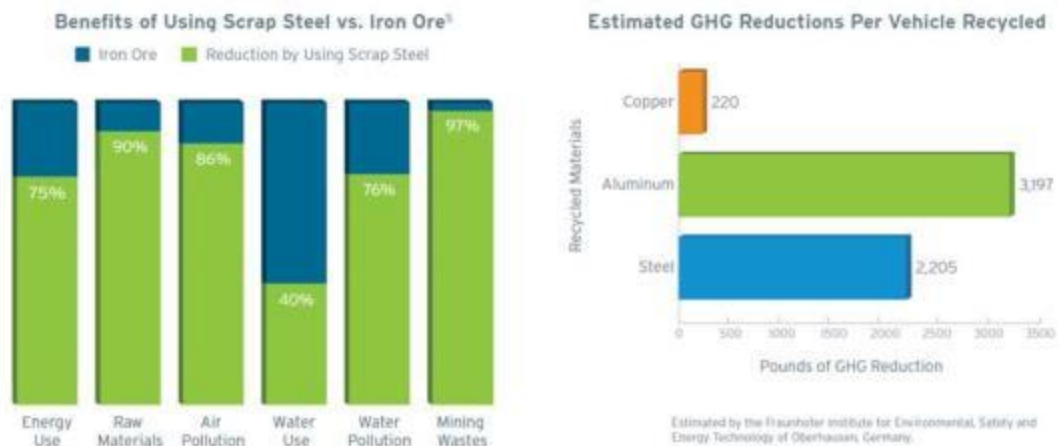
- 2014
- Energy Efficient Vehicle (EEV)
 - Promote Green Automotive Eco System (Cradle NAP To Cradle)
 - Promote Standards & Guidelines

Dasar Teknologi Hijau

- Government will develop Putrajaya and Cyberjaya as pioneer townships in Green Technology, as a showcase for the development of other townships.
- Allocation of RM1.5 billion dedicated funding for adoption of green technology through GTFS

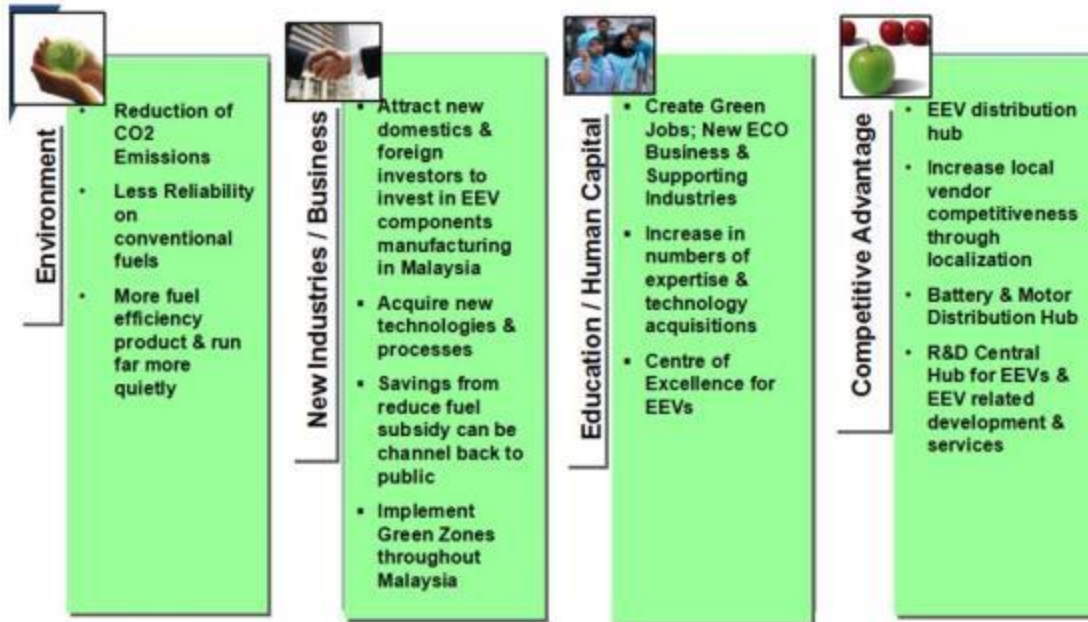
GREEN AUTOMOTIVE BENEFITS

The automotive recycling industry also saves energy, conserves natural resources, reduces air and water pollution and greenhouse gas (GHG) emissions, and recycles environmentally sensitive substances including



Source: *Norstar Steel Recyclers* www.norstar.com.au/Recycling/Processing/Benefits.aspx

GREEN AUTOMOTIVE BENEFITS



STRATEGIC THRUST ON SAFETY, SECURITY & ENVIRONMENT

Thrust	General Description
Safety, Security & Environment	1. Promote vehicle safety through <ol style="list-style-type: none"> i. Use of standards across safety related used and new parts & components. ii. Vehicle Inspections / ELV Regulations
	2. Promote environment through <ol style="list-style-type: none"> i. Implementation of Euro 4M ii. Adopt 3R (Reduce, Reuse and Recycle) iii. Transform to remanufacturing industry. iv. Transform After Market into a regulated industry towards environment and consumer focus.
	3. VTA Technical Service Provider.

MALAYSIAN AFTERMARKET

Basing on the analysis of the motor vehicle population in Malaysia, at as 31 December 2016 there are 12,997,839 motor cars out of a total of 27,613,12 motor vehicles.

These 12.0 million motor cars consist of:

- 2.8 million cars LESS THAN 5 years old
- 2.4 million cars BETWEEN 5 to 10 years old
- 5.2 million cars MORE THAN 10 years old (with 3.4 million EXCEED 15 years old)

Taking away the number of cars below 5 years old (approx. 2.8million), an estimated 7.5 million are serviced and served by 22,901 independent workshops employing 88,235 persons with an annual output of RM7.1 billion; while the aftermarket sales of parts and accessories was provided by 13,783 parts shops employing 81,210 persons with an annual output of RM9.0 billion.

Source : Road Transport Department

AUTOMOTIVE AFTERMARKET ECO-SYSTEM



GREEN AUTOMOTIVE INITIATIVES

To effectively meeting the objectives of the NAP 2014 strategic thrust of Safety, Security and Environment, the Government and the automotive industry stakeholders must work together on ensuring the necessary steps are taken.

The steps include many activities, such as:

- ❑ Transforming After Market into a regulated industry towards environment and consumer focus
- ❑ Prepare new and enhance existing infrastructure to support ELV policy
- ❑ Transforming to enhance the existing automotive part recycling industry;
- ❑ Developing & promoting the infrastructures for remanufacturing;
- ❑ Promulgating the creation of industry Codes and Standards;
- ❑ Formulating Safety & Environment related automotive Policies and Enactments;
- ❑ Conduct Public Education and promote Consumer Acceptance

GREEN AUTOMOTIVE INITIATIVES

Strategic Plan	Action Plan
Transforming After Market into a regulated industry towards environment and consumer focus	<ul style="list-style-type: none"> ▪ Developed <u>4R2S, the Aftermarket Standards</u> for provision of Services and Spare Parts; ▪ Advocated the Workshop Licencing Legislation
Prepare new and enhance existing infrastructure to support ELV policy	<ul style="list-style-type: none"> ▪ Developed the <u>4R2S, the Aftermarket Standards</u> for ELVs Processing & Parts Recycling & Remanufacturing; ▪ Developed the <u>National Occupational Skills Standards</u> for ELV Processing & Parts Remanufacturing
Transforming to enhance the existing automotive part recycling industry	<ul style="list-style-type: none"> ▪ Advocating & Facilitating the creation of the <u>National Remanufacturing Policy (NRP)</u>
Developing & Promoting the infrastructures for remanufacturing;	<ul style="list-style-type: none"> ▪ Forge partnerships with local & foreign institutions for <u>development/adoption of green process technologies</u> ▪ Development of <u>Recycling Industry Incentives</u> for existing and new recycling companies to improve facilities and conform to 4R2S and other related environmental laws

GREEN AUTOMOTIVE INITIATIVES

Strategic Plan	Action Plan
Promulgating the creation of industry Codes and Standards	<ul style="list-style-type: none"> ▪ Working with KPDNKK & MIROS to enact <u>mandatory MS Standard for Safety-Critical Parts & Systems</u> (Aftermarket & Recycled/Remanufactured Parts) ▪ <u>Policy support regulating export/import of cores</u> to protect the local remanufacturing industry ▪ Advocate legislative <u>policies and regulations in support of</u> ▪ <u>the automotive recycling</u> to the industry
Formulating Safety & Environment related automotive Policies and Enactments	
Conduct Public Education and promote Consumer Acceptance	<ul style="list-style-type: none"> ▪ Engagement with Public <ul style="list-style-type: none"> • Safe Car Programs • Car Care Week Programs ▪ Promote <u>government procurement preference for recycled/reman products</u> or product with recycled contents
Developing & Driving Human Capital Development and Capacity Building	<p><u>Build operational excellence</u> through adoption of best practice <u>continuous improvement methodologies</u>:</p> <ul style="list-style-type: none"> ▪ Industry Professional Led Certificate (IPC)-Pengiktirafan Pencapaian Terdahulu (PPT) ▪ IPC-Sistem Latihan Dual Nasional (SLDN)

“4R” QUALITY MANAGEMENT SYSTEM

- “4R” covers the industry processes of recovery of vehicle parts and components for:
 - ✓ Reuse;
 - ✓ Repair;
 - ✓ Remanufacture; and
 - ✓ Recycle
- The 4R standard prescribes ELV management, the parts and components recycling and remanufacturing industries, and the safety and environmental aspects of the automotive aftermarket ecosystem. This standard prescribes requirements for 4R activities of vehicles parts and components. This standard also covers aspects relating to knowledge, process and method, materials, equipment, safety and environment.
- This standard applies to entities involved in 4R activities including material recovery, processing and handling for reuse, repair, recycle and remanufacture of vehicles parts and components. These licensed entities are also known as authorised treatment facilities (ATF).

“2S” QUALITY MANAGEMENT SYSTEM

- “2S” covers the code of practices for provision of:
 - ✓ Service; and
 - ✓ Spare (replacement) parts
- “2S” standard prescribes requirements of the 2S (Service and Spare (replacement) Parts) Workshops and Part Shops activities including of responsibility of workshop and Part Shop operators with regards to the requirement of 4M (Man, Method, Machine, and Material), facilities required, training and competency of staff.
- The vehicles categories covered by this standard includes JPJ vehicle classifications L, M1, M2, M3, N1, N2, N3 and O.

CONCLUSION



十、「政策對於新能源車推動之影響」簡報資料



**The Impact of Government Policy on Promoting New
Energy Vehicles (NEVs) – The Evidence in APEC Economies
(Project No. CTI 26 2014A)**

26th Automotive Dialogue
June 5, 2017

OUTLINE

PROJECT OVERVIEW

PROJECT DEBRIEFING

FUTURE WORK

PROJECT OVERVIEW

The Impact of Government Policy on Promoting New Energy Vehicles (NEVs) – The Evidence in APEC Economies (Project No. CTI 26 2014A)

Objectives

Assess the effect of policy on development of NEVs

What are the main factors that determine the NEV acceptance of potential consumers



How government policies affect the factors in NEV development.

PROJECT OVERVIEW

□ Alignment

Rank 1: promoting regional economic integration via free and open trade and investment.

To promote connectivity, including enhancing physical infrastructure, institutional and people-to-people connectivity

Rank 2: directly support the APEC Leaders' Growth Strategy

To promotion of Low Carbon technology



PROJECT OVERVIEW

□ Contents

A historical review of government policy on NEVs in APEC economies

A database for government policy on NEVs in APEC economies will be established

The effects of government policy on NEV industry

- Factors influencing NEV acceptance
- Moderating effects of government policies

PROJECT DEBRIEFING

□ Project Implementation

A literature review and evaluation of policy instruments on NEVs in APEC economies:

- From various database: technical periodicals, internet, research report and government report
- Label description using time point, category and effectiveness assessment
- Evaluating the policy instruments using Network Analysis Theory

PROJECT DEBRIEFING

Project Implementation

Label description for NEV policy



PROJECT DEBRIEFING

Project Implementation

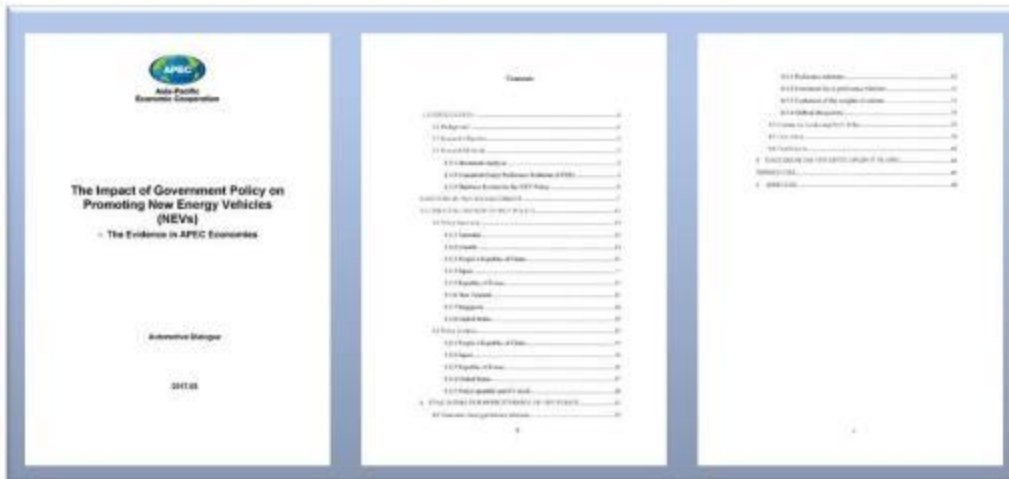
NEV policy summary and analysis



PROJECT DEBRIEFING

□ Project Implementation

Submission of research report



FUTURE WORK

□ Work Plan

To discuss and exchange the outcomes of the project with AD colleagues

To prepare a workshop at next AD meeting

十一、美國有關「標準聯盟」說明簡報資料



Program Overview

- ANSI-USAID public private partnership
- Unique capacity building facility to support developing economies implement commitments under the WTO's [Technical Barriers to Trade](#) (TBT) agreement
- Period of performance: 2013-2018 (2018-2021 in Africa)
- USAID requires a 1:1 private sector contribution (in-kind or cash)

Scope of Potential Activities

- Any sector or topic within standardization can be covered, as long as it supports one of the following objectives:
 1. Increased understanding of WTO TBT principles
 2. Implementation of the Code of Good Practice for the Preparation, Adoption and Application of Standards
 3. Improved transparency in the development and alteration of technical regulations
 4. More robust and transparent engagement with the private sector in standards development and use

Partner Economies/Regions

- Central America (CAFTA-DR participants)
- Mexico
- Colombia
- Peru
- Indonesia
- Viet Nam
- Middle East/North Africa (Morocco, Jordan)
- Southern African Development Community
- East African Community
- New in 2016 - Ghana, Senegal and Cote d'Ivoire

Recent Success in Indonesia

■ Workshop on Key Aspects of Good Regulatory Practice

- Jakarta, Indonesia on March 15-16, 2017
- Organized in partnership with the U.S. Embassy Jakarta and the Indonesia Ministry of Trade
- Attended by over 150 representatives of Indonesian government ministries and private sector organizations
- Speakers from the U.S. represented the Office of the United States Trade Representative (USTR), Office of Management and Budget Office of Information and Regulatory Affairs (OMB-OIRA), ASTM International, International Association of Plumbing and Mechanical Officials (IAPMO), International Code Council (ICC), and Shell Corporation



Speakers at the Jakarta workshop on good regulatory practices

Pipeline Activities: Asia Pacific

■ Standards Alliance activities on sidelines of 2017 APEC Meetings (Vietnam) during SOM III in August

- American Chemistry Council (ACC) Program on Chemical Regulations in association with the Chemicals Dialogue
- APEC Concept Notes (CNs) submitted on Advanced TBT Course for Regulators and the annual APEC GRP Conference, each to be supported by the Standards Alliance
- Projects will build upon previous work in APEC as well as Standards Alliance programs

Successes Supporting Auto Sector



- Exchanges on automotive standards and regulation with APEC Auto Dialogue
- Workshop with standards bodies and regulators of Western Hemisphere
- Opportunities to promote best practices in safety and environmental requirements



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Get Involved



- Website: <http://standardsalliance.ansi.org>
- Any organization has the opportunity to propose areas of focus, including specific projects or activities, for each work plan.

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Standards Alliance

USAID FROM THE AMERICAN PEOPLE ANSI

PARTICIPATING COUNTRIES ABOUT US ACTIVITIES NEWS AND ANNOUNCEMENTS BROCHURES

INDONESIA
PERU
CENTRAL AMERICA
COLOMBIA
EAST AFRICA
MIDDLE EAST/NORTH AFRICA
SOUTHERN AFRICA
ASEAN
YEMEN
MEXICO

ABOUT STANDARDS ALLIANCE: A PUBLIC-PRIVATE PARTNERSHIP BETWEEN ANSI AND USAID

The Standards Alliance was announced by USAID in November 2012 as a new funding facility designed to provide capacity-building assistance to developing countries, specifically related to implementation of the World Trade Organization (WTO) Technical Barriers to Trade (TBT) Agreement. The main objectives of the program, which will inform the activities to be conducted, include:

- Increased understanding of WTO TBT principles
- Implementation of the Code of Good Practice for the Preparation, Adoption and Application of Standards
- Improved transparency in the development and/or modification of technical regulations
- More robust and transparent engagement with the private sector in standards development and use

In May 2013, USAID and ANSi entered into a partnership that will coordinate private-sector subject-matter experts from ANSi member organizations in the delivery of training and other technical exchange with interested Standards Alliance countries.

- [View the current program plan \(2014-2015\)](#)

VIEW REPORTS FOR THE STANDARDS ALLIANCE:

Quarterly reports:

- 2015 - Quarter 2
- 2015 - Quarter 1
- 2014 - Quarter 4

Annual Reports

- Annual Report Year 1: 2014 - 2015
- Annual Report Year 1: 2013 - 2014



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APEC Motor Vehicle Related Taxation

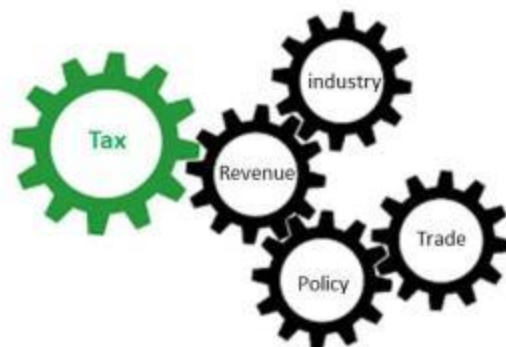
UPDATED
Comparative Analysis and Findings
May 2017



APEC Auto Tax Importance

Tax policy, the sovereign right of governments:

- Is often used to:
 - Collect revenue
 - Achieve domestic policy objectives
- It also influences:
 - International trade
 - Market size & behavior
 - Growth & health of industry



Auto Taxes Growth & Competitiveness

- Tax policy can boost economic growth and industry competitiveness.
- The auto industry has one of the largest economic and job multipliers, and many economies are eager to attract auto industry investment.
- The right tax policy can help attract auto investment and growth and can also play a key role in maintaining a globally competitive industry.



3

Categories of Auto Taxes

Four basic auto tax categories were identified:

- 1. Border** (Paid upon the import of the vehicle)
 - Most commonly the import tariff.
- 2. Purchase** (Paid at the point of purchase)
 - Most commonly, Value Added Tax (VAT) and General Sales Tax (GST), but also indirect Excise Taxes.
- 3. Possession** (Paid over the life of the motor vehicle)
 - Most commonly an annual registration tax.
- 4. Use** (Paid during the use of the vehicle)
 - Most commonly a fuel tax per liter of gasoline or diesel.

And there are also important **tax incentives** used in the automotive sector- primarily to promote energy efficiency (not thoroughly covered in the following analysis).

Analysis

4

Tax Comparison Variables

4 New Car/Sedan <10 seats and 1 New Pickup Truck (5 generic examples)

WHOLESALE/IMPORT (Customs Value)
RETAIL (Consumer/Purchase Price)
ENGINE SIZE/TYPE (Displacement/ Gas or Diesel)
NUMBER OF PISTONS (cylinders)
FUEL TYPE (Gasoline/Diesel)
ENGINE POWER: (Horse Power)
TRANSMISSION: (Automatic/2x4)
VEHICLE WEIGHT (kg)
FUEL EFFICIENCY (per 100km)
FUEL EFFICIENCY (per km)
NON-TAX PRICE (Gasoline/liter)
FUEL TYPE/MEASUREMENT: (Gasoline Unleaded/Liter)
DISTANCE TRAVELED ANNUALLY (15,000km)
LITERS CONSUMED (per 15,000 km)
ANNUAL NON TAX (Cost of Gasoline)
AIR CONDITIONING (Yes/No)

Analysis

5

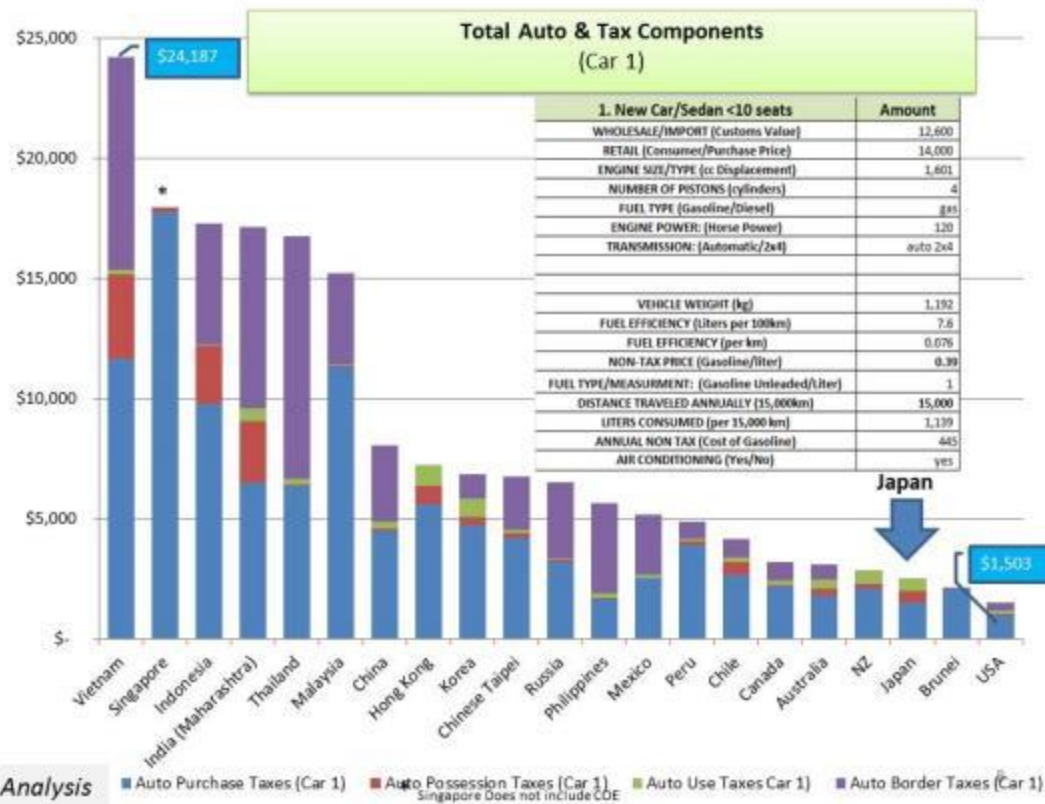
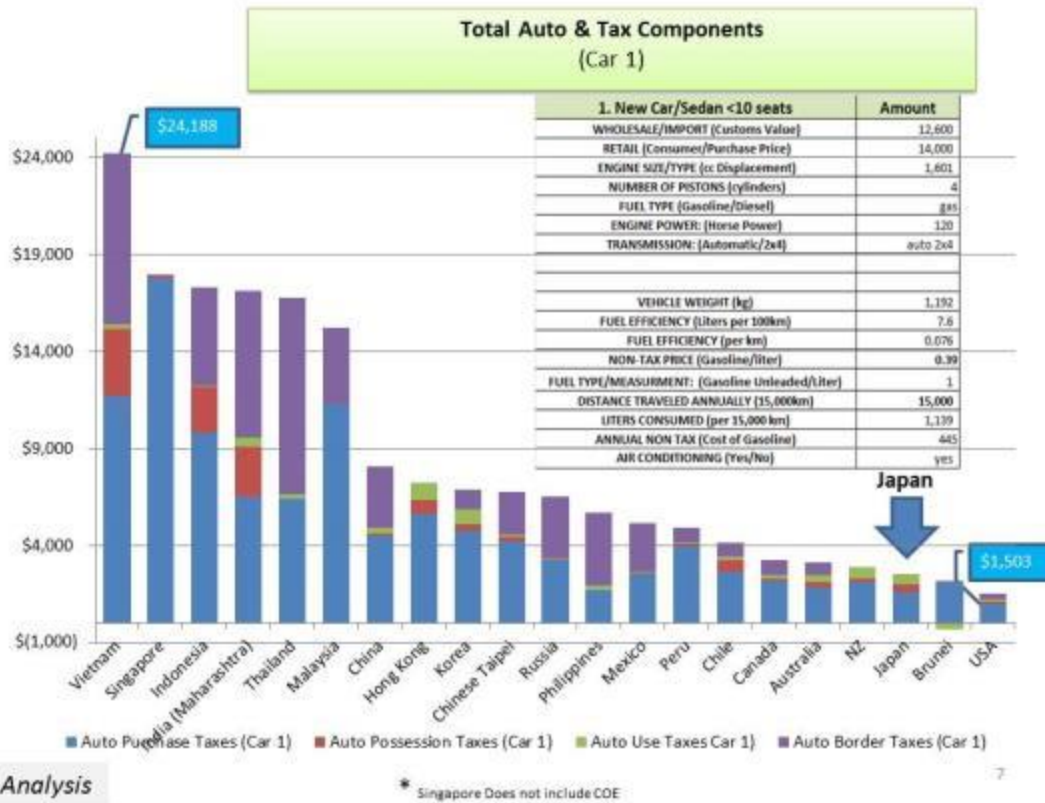
Tax Analysis: Assumptions

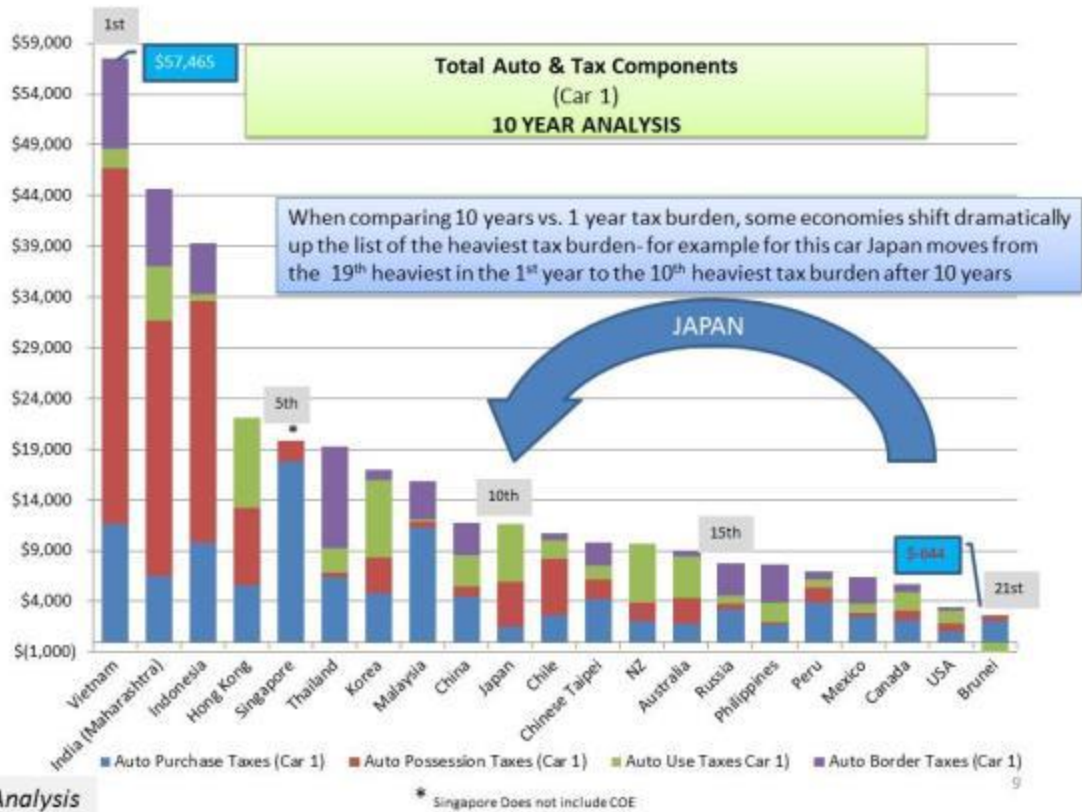
This analysis shows generic examples of vehicle configurations with several omissions and assumptions to make equal comparisons possible:

- **It omits:**
 - Preferential tariff arrangements (Free Trade Agreements);
 - Special treatment of CKDs;
 - Special domestic tax treatment afforded domestic over imported vehicles;
 - Off the book special arrangements; and
 - Tax incentives for green technologies.
- **It assumes:**
 - For a retail price, a 10% markup from the import or wholesale price;
 - Vehicles with automatic transmissions, 2x4 drive;
 - The use of regular unleaded gasoline;
 - The cost of driving the vehicle 1-year (15k per year);
 - That the price of pre-tax gasoline is the international spot market over the last year April 2015 – March 2017;
 - The exchange to the US dollar is the average between Nov. 2016 – April 2017.

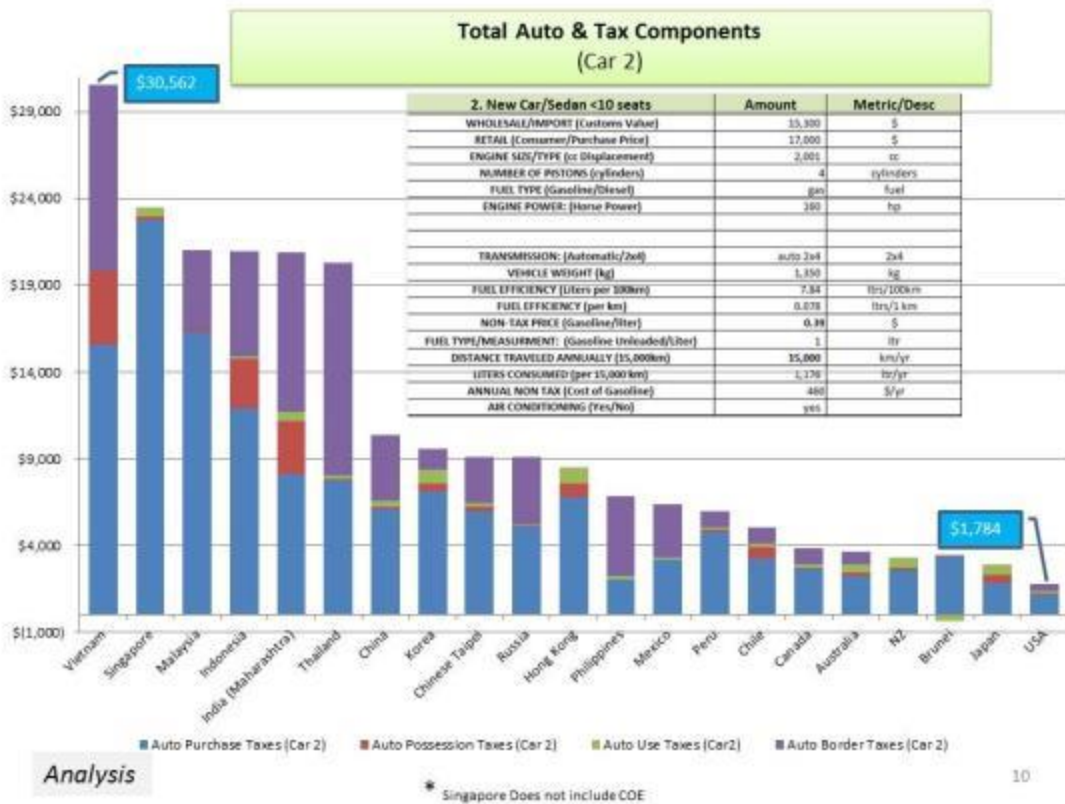
Analysis

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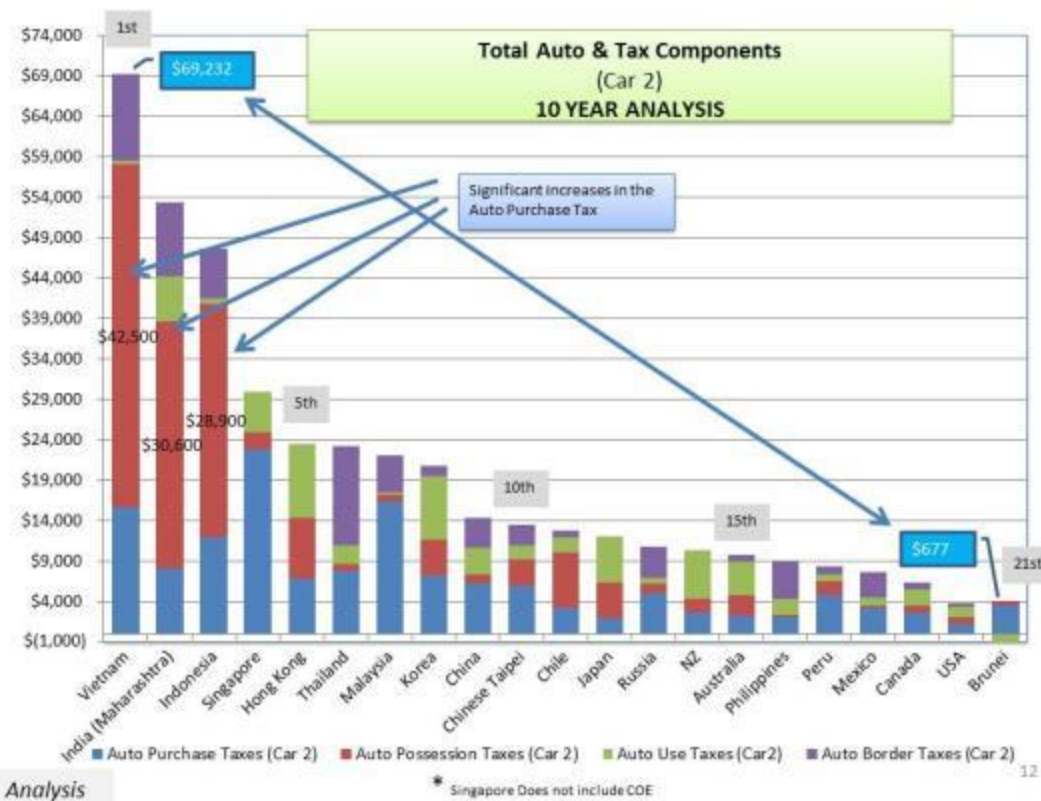
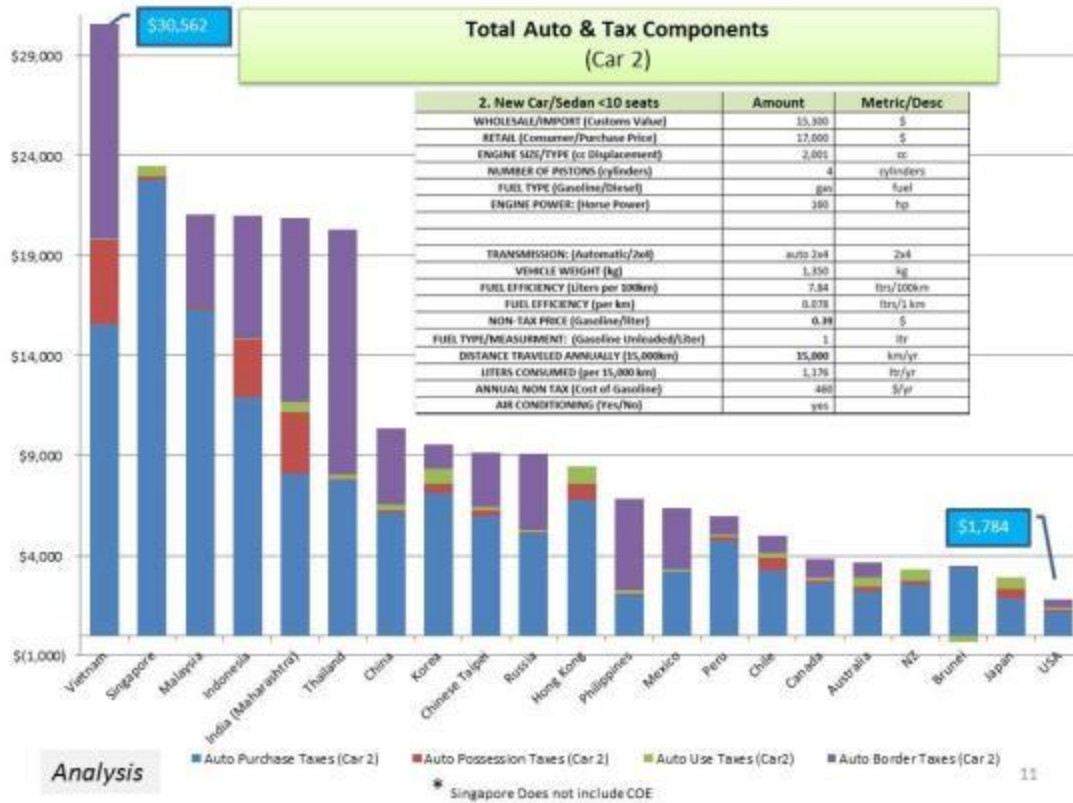


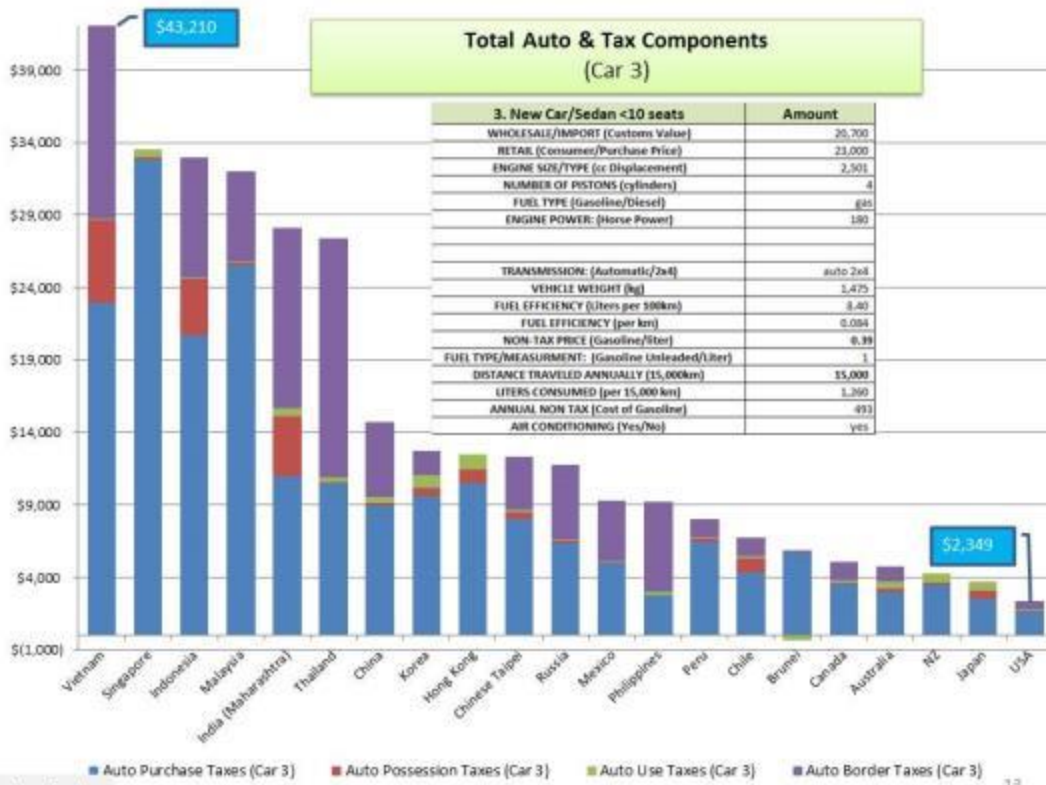


Analysis



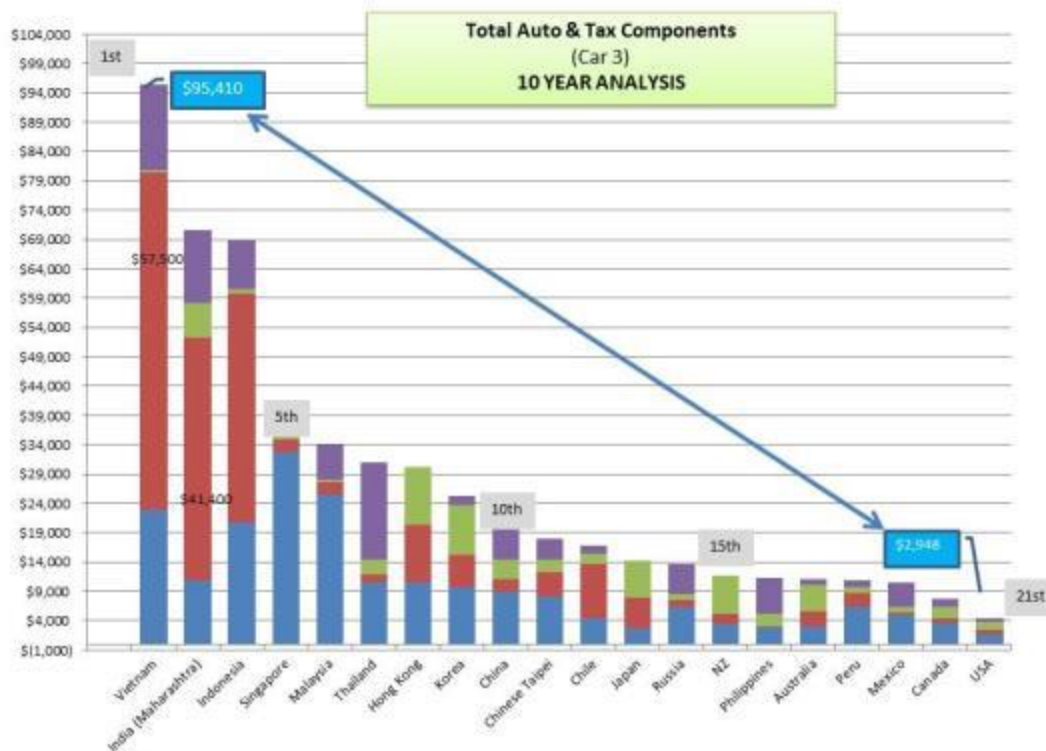
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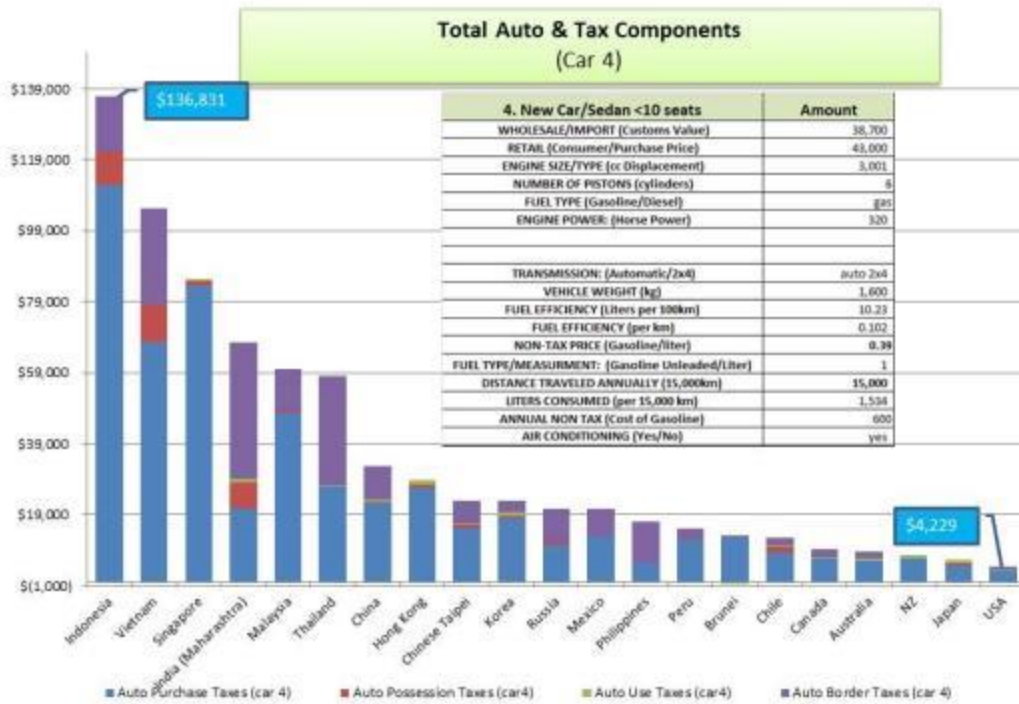
Analysis

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Analysis

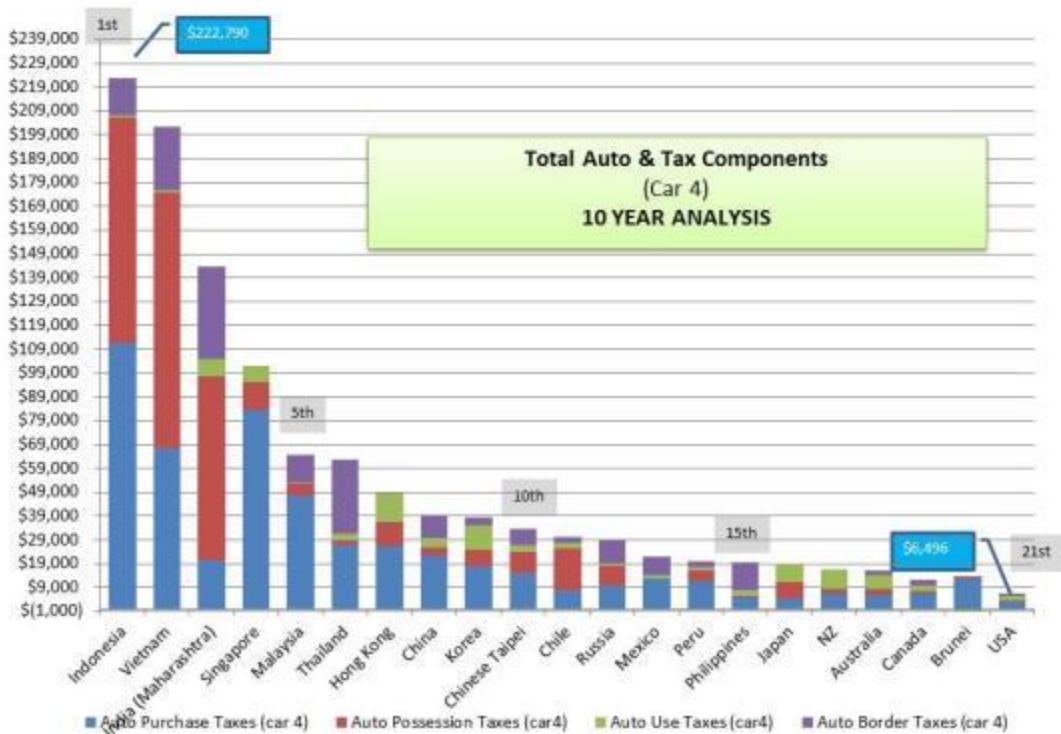
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Analysis

* Singapore Does not include COE

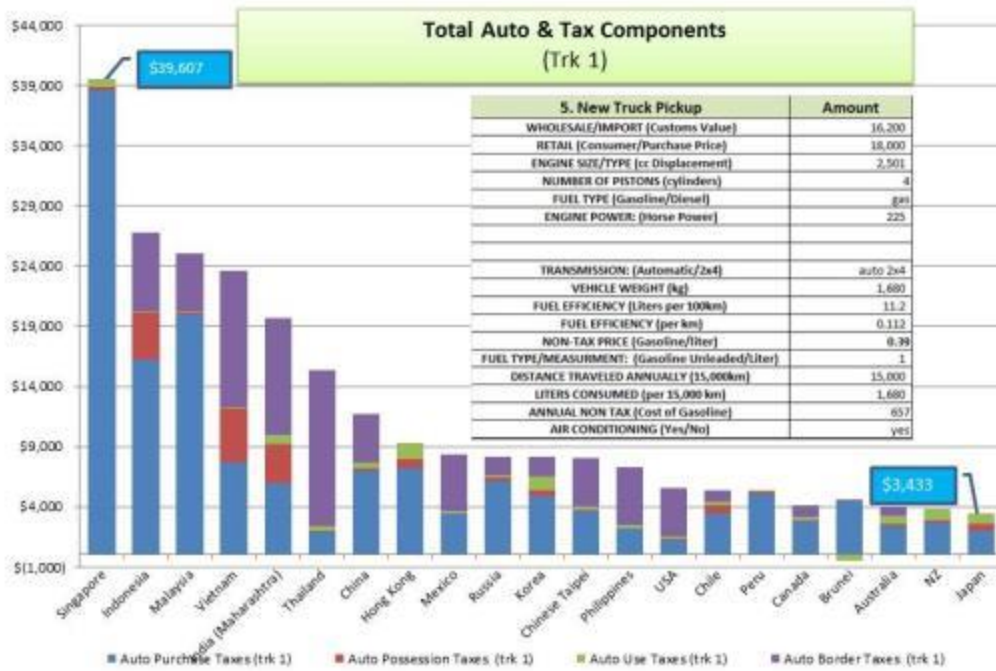
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Analysis

* Singapore Does not include COE

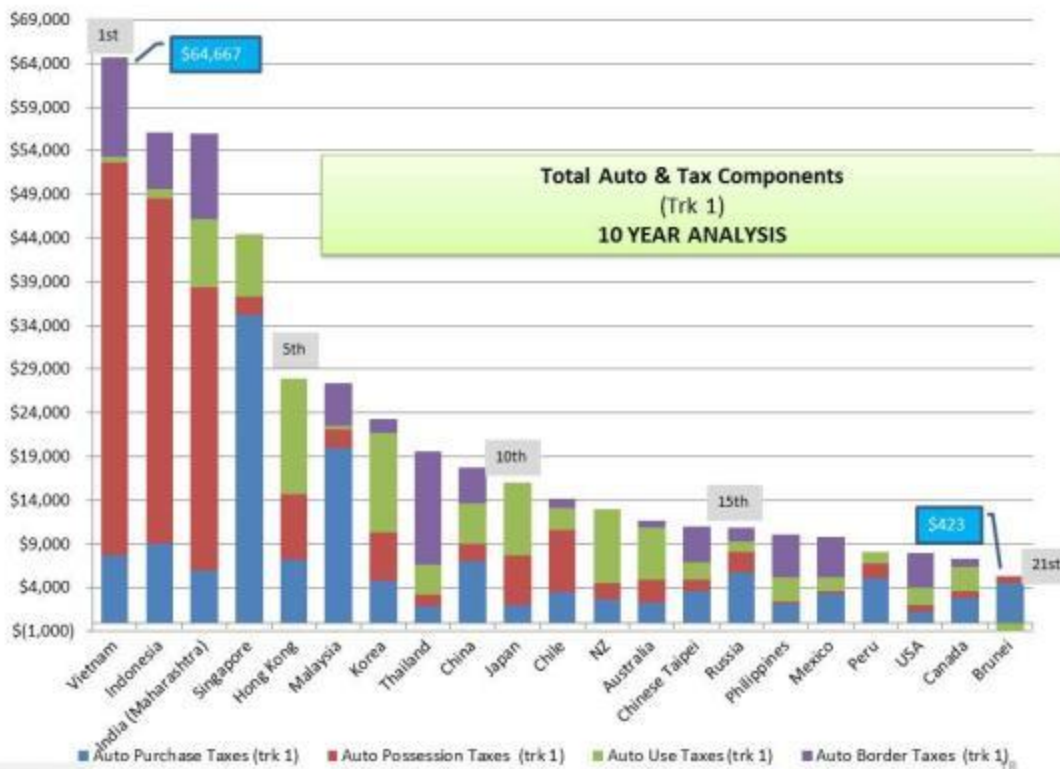
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Analysis

* Singapore Does not include COE

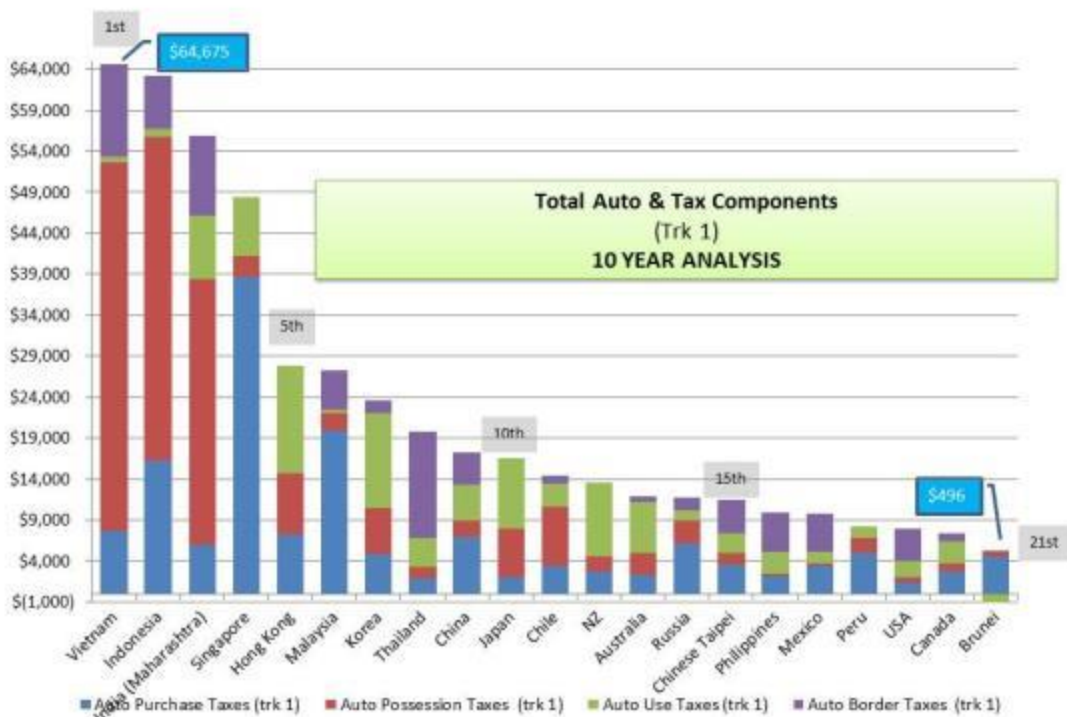
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Analysis

* Singapore Does not include COE

18



Analysis

* Singapore Does not include COE

19

APEC Auto Tax Findings

Biggest Contributors

Auto taxes are as diverse as the economies involved, but there are some obvious similarities and patterns that emerge.

- Regardless of the vehicle characteristics the two **biggest contributors to the differences in total taxes For the FIRST YEAR are Purchase and Border taxes.**
- **Possession** taxes for the first year are minimal in comparison, but much more **significant after 10 years.**
- Taxes (or subsidies) **on Use** (fuel cost for 1 year) also has little impact on the overall tax burden.

20

APEC Auto Tax Findings

Auto Tax Groups

The economies tend to breakdown into three categories- High, medium and lower auto tax burdens:

- **Top third tax group** includes (Singapore, Vietnam, Malaysia, Indonesia, and Thailand and India).
- **Middle third tax group** includes (China, Hong Kong, Chinese Taipei, Korea, Philippines, Russia, Mexico)
- **Lower third tax group** includes (Peru, Chile, Canada, New Zealand, Australia, Japan, Brunei and the USA)

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APEC Auto Tax Findings

Tax Groups (Top)

What are commonalities in the top third?

The economies with the higher auto taxes (Hong Kong and Singapore aside) have relatively higher **import duties** and **excise taxes** on cars with larger engines.

- **Vietnam** has a **70% import duty**, and a **consumption/excise tax ranging from 40-90%**.
- **Indonesia** has a **40% import duty**, with a large **luxury sales tax topping out at 75%** and also applies a high **excise tax ranging from 10-125%** based on engine size.
- **India** has a **60% import duty**, and an **excise tax ranging from 12.5-30%**
- **Thailand** has a **80% import duty**, and an **excise tax, ranging from 3-50%**, that significantly favors pickup trucks and cars with smaller engines over cars with larger engines, and favors low Co2 emissions.
- **Malaysia** has a **30% import duty**, coupled with an **excise tax that ranges from 60-105%**.

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APEC Auto Tax Findings

Tax Groups (Low)

What are commonalities in the lower third?

The **lower third tax group** includes (Peru, Chile, Canada, New Zealand, Australia, Japan, Brunei and the USA) for the first year.

- **Total taxes are US\$9,000 or less** on car examples (excluding the luxury car)
- **Import duties are at 6.1% or less** on passenger cars, with three economies with zero tariffs (Brunei, Japan and New Zealand).
- **Purchase taxes are not based on engine displacement** (except for Brunei).
- **Comprised mostly of developed economies**

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APEC Auto Tax Findings

Domestic vs. Import

Border taxes, which vary widely- from 0% to 80% within the APEC region, represent the difference between import and domestic price differences.

- **Of the 20 economies analyzed:**
 - **5 have 0% import duties on Passenger Cars** (Brunei, Hong Kong, NZ, Japan and Singapore).
 - **8 have import duties ranging from 2.5-20%** (Australia, Canada, Chile, Chinese Taipei, Korea, Mexico, Peru, and the USA).
 - **8 (7 APEC) have import duties between 25%-80%** on passenger cars (China, Indonesia, Malaysia, Philippines, Thailand, Russia, Vietnam and India).

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Excise Tax- Definition & WTO

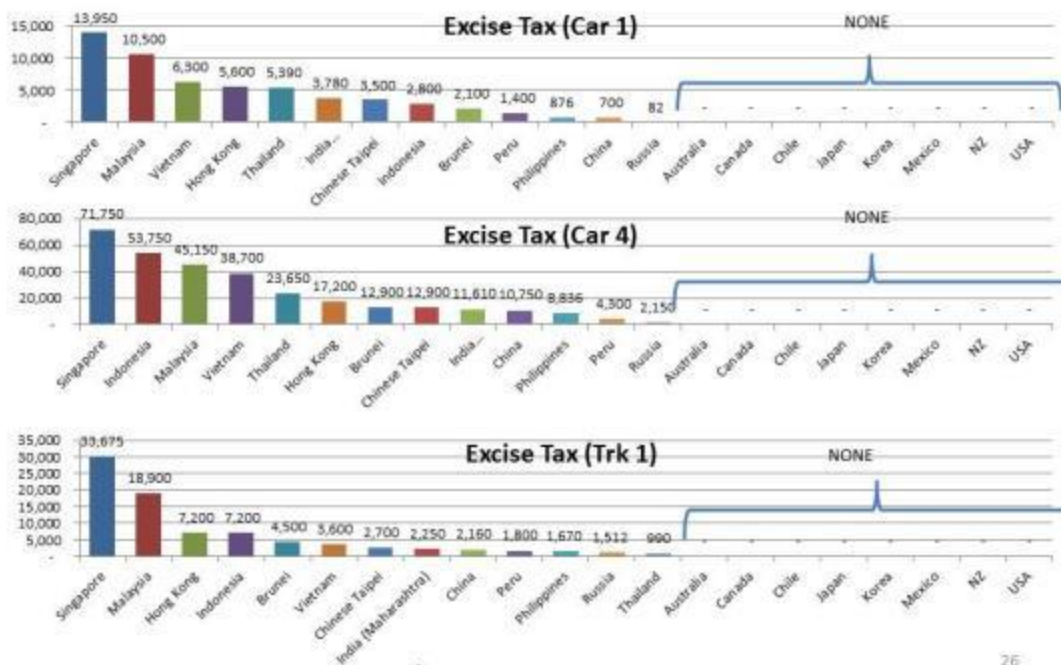
Large Impact

- An excise tax (sometimes called a special excise duty) is an inland tax on the sale of a specific goods often specific attributes of goods sold within an economy.
- Excise are often indirect taxes that are typically paid by the producer and passed on to the consumer and are added onto a sales tax. In contrast, sales tax is a direct tax- paid by the consumer.
- The WTO requires **“National Treatment”** for excise taxes—i.e., that they be applied in a non-discriminatory manner (irrespective of the goods’ origin or whether imported or domestic).
- This prohibits discrimination between imported and domestically produced goods with respect to internal taxation or other government regulation.

Analysis

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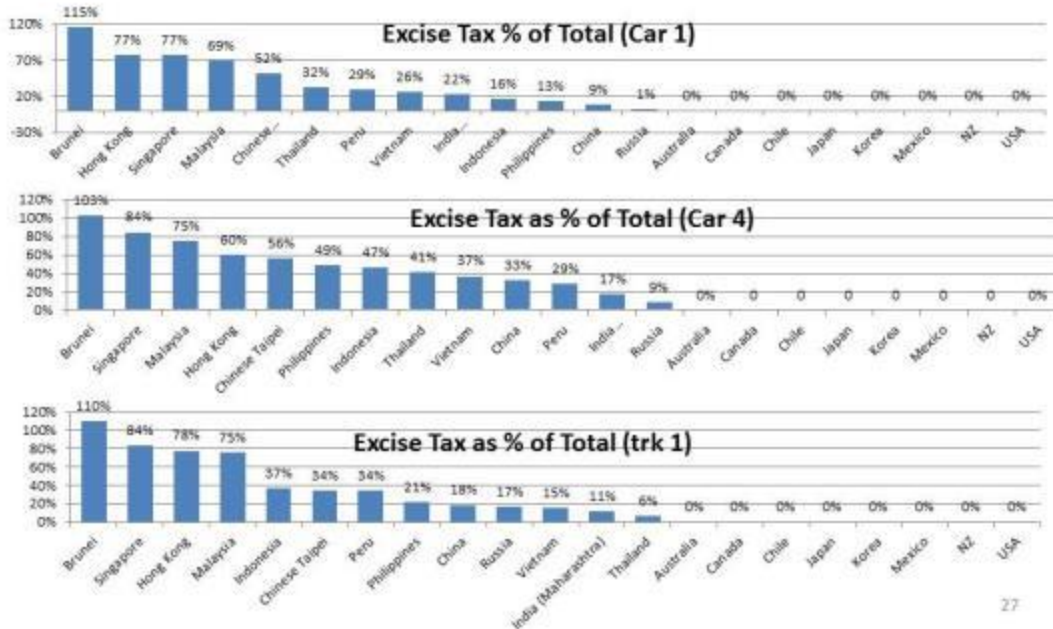
APEC Auto Excise Taxes



26

Excise Tax- Impact

Among the Biggest Impact and Difference in APEC



27

Auto Excise Tax in Brazil

EU Challenge in the WTO

Brazil's excise taxes on cars "can total up to 30% of their value" depending on the amount of imported content. Combined with tariffs and other charges, this could lead to "a prohibitive tax of 80% on the import value"- according to the EU

Complaint by the EU (DS 472 & 497 by Japan)

- In December 2013, the EU requested consultations with Brazil with respect to taxation and charges in the automotive sector, the electronics and technology industry, goods produced in Free Trade Zones, and tax advantages for exporters.
- The EU claims that the measures are inconsistent with: Articles I:1, II:1(b), III:2, III:4 and III:5 of the GATT 1994; Articles 3.1(a) and 3.1(b) of the SCM Agreement; and Articles 2.1 and 2.2 of the TRIMs.
- In October 2014, the European Union requested the establishment of a panel. At its meeting on 18 November 2014, the DSB deferred the establishment of a panel.

Panel and Appellate Body proceedings

- At its meeting in December 2014, the DSB established a panel. Argentina, Australia, China, India, Japan, Korea, the Russian Federation, Chinese Taipei, Turkey and the United States, Canada, Colombia and South Africa reserved their third-party rights.
- In March 2015, the EU requested the Director-General to compose the panel. On 26 March 2015, the Director-General composed the panel.
- In October 2015, the Chairperson of the panel notified the DSB that the panel in DS497 was composed of the same persons as the panel in this dispute and notified that DS497 is being harmonized.

28

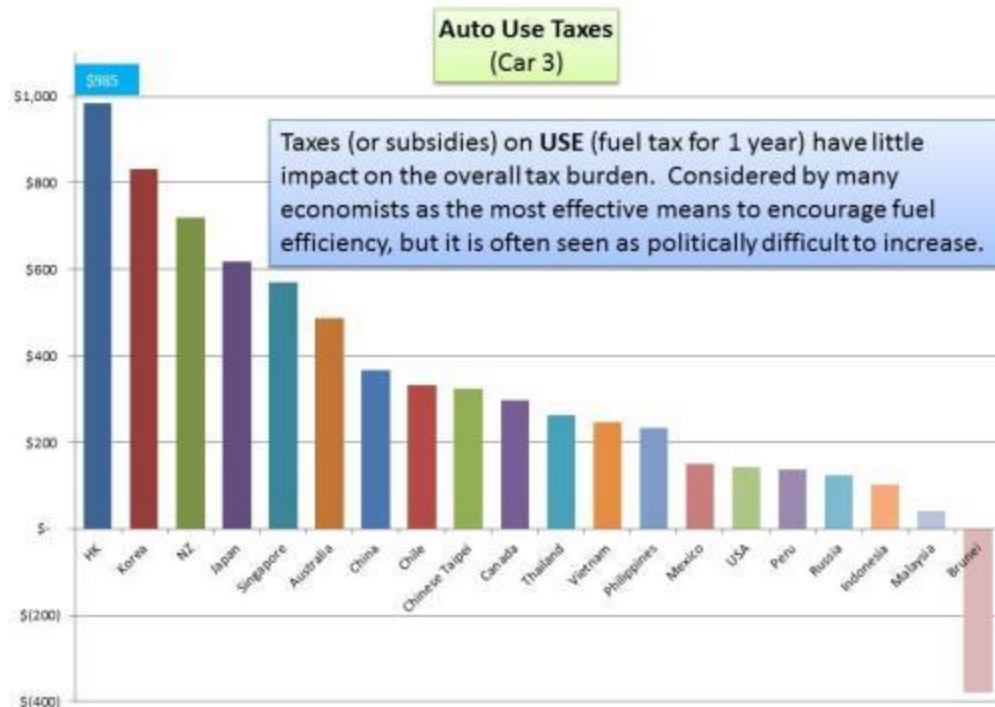
APEC Auto Tax Findings

Car vs. Truck

Taxes can have a significant impact on the composition of the domestic auto market.

- For example, several economies have adopted tax policies that favor pickup trucks over cars.
- Overall auto taxes on pickup trucks compared to cars is significantly lower (except Singapore and the USA).
- The economies providing the biggest tax breaks for trucks are Indonesia, Korea, Thailand, Vietnam and Russia- with 50% or more lower taxes.

29



30

Economist Magazine Article On Auto Taxes

Road taxes in Europe - Not easy being green

Why fuel taxes are the best way to encourage sales of greener cars

July 30th 2016

THE world's policymakers agreed at the Paris climate-change talks last December to try to limit greenhouse-gas emissions... To succeed, they need, among other things, to encourage people to buy cleaner cars & Trucks. It is estimated that **around [20%] of carbon-dioxide emissions come from road vehicles.**

Economies have tried to get drivers to go for greener vehicles. Some have taxed gas and diesel. Others have taxed the ownership of dirty cars by raising their annual registration fees, or dangled rebates on greener ones.

A new study...concludes that the least efficient policy was the annual rebate for owning a green car. The authors found this was much less effective than raising the annual registration fees on dirty cars... But even that was inefficient...**Higher fuel taxes were more effective: the authors found a 16% increase in petrol duty had the same effect as a 50% increase in registration fees.**

The author of the study concludes that drivers seem to see road taxes as less important than fuel efficiency, in part because refilling their cars frequently reminds them of the cost. Second, as the annual registration fee is levied regardless of distance driven, there is no incentive to drive less once it has been paid.

Higher fuel taxes are, alas, unpopular... Good politics is rarely good news for the environment.

<http://www.economist.com/news/finance-and-economics/21702762-why-fuel-taxes-are-best-way-encourage-sales-greener-cars-not-easy-being-green>

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Swiss Study Concludes Fuel Tax Better Than Other Taxes

The Effect of Registration Taxes on New Car Sales and Emissions: Evidence from Switzerland

A. Alberini and M. Bareit
Working Paper 16/245 May 2016

- In Switzerland, the annual registration taxes on road vehicles are set and paid to the local governments, not to the federal government. The study **explores the 26 different local tax rules** to see if they led to a reduction in a **vehicle's CO2 emissions rate.**
- **The study finds that even when the penalty associated with a highly polluting vehicle is high, the effect is relatively small.** For example, in canton Zurich, imposing a 50% "malus" on the annual registration fee for cars that emit 200 or more grams of CO2 per kilometer reduces the average CO2 emissions by only 0.46 gram per kilometer.
- **Even more important, a similar effect would be attained with a modest increase in fuel taxes- estimating that a modest increase in motor fuel tax (about 16%) would be sufficient to engender the same effect as a 50% increase in registration taxes.**

<http://e-collection.library.ethz.ch/eserv/eth:48931/eth-48931-01.pdf>

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Dutch Study Concludes Fuel Tax Best

Fiscal policy and CO2 emissions of new passenger cars in the EU

4 February 2015

Reyer Gerlagh, Tilburg University, Netherlands / Inge van den Bijgaart, Tilburg University, Netherlands / Hans Nijland, / Thomas Michielsen

- This study concludes that **higher annual road taxes on gas-guzzlers have no, or even an adverse, effect on emissions.**
- The increased CO2-sensitivity of *registration taxes* have reduced the CO2 emission intensity of the average new car by 1.3 percent, partly through an induced increase of the share of diesel-fueled cars by 6.5 percentage points. **Higher fuel taxes lead to the purchase of more fuel efficient cars,** but higher *annual road taxes* have no or an adverse effect.

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Conclusions

- Regardless of the vehicle characteristics **the two biggest contributors to the differences in total taxes are Purchase and Border taxes for the first year, but for a 10 year comparison the impact of possession taxes grows.**
- Three auto tax burden categories emerge, often reflecting level of economic development. **High middle and low**
- Taxes have a powerful influence on market configurations (e.g., car vs. truck- with trucks tending to be incentivized over cars).
- As economies move up the development curve, they recalibrate by lowering the auto tax burden and structure helping, not hindering, auto industry global competitiveness (big exception is Singapore).
- Most APEC economies have tax incentives, with many targeting specific technologies and some based on performance.
- Performance-based tax incentives, more directly reflecting economies' core goals, should be considered above other approaches.

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Tax Incentives: Initial Findings

- Most APEC economies have tax incentives for “New Energy”, “Alternative Fuel”, “Fuel Efficient”, or “low carbon output” vehicles.
- Many target specific technologies, such as: Hybrid EVs, Full Electric vehicles, and a Fuel Cell vehicles. Others target fuel efficiency & carbon output performance.
- Often economies’ core goals for auto tax incentives are fuel efficiency, lower emissions (carbon & others), energy independence, or all the above- at the lowest cost to society.
- Independent experts/studies concur that performance-based tax incentives that more directly link to primary goals are the best practice.
- This is because it allows new auto technologies and innovations to emerge based on merit, instead of incentives. It can also help avoid technology delays, dead ends, or second-best solutions.
- Recent studies confirm the superior performance of fuel price increases as the single best means to increase fuel efficiency of fleet.

十三、新汽車技術簡報資料



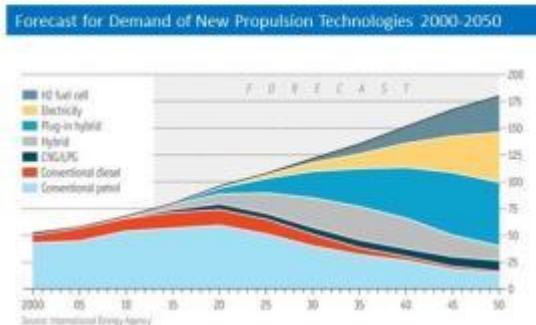
New Automotive Technologies

26th APEC AUTOMOTIVE DIALOGUE
HANOI, VIETNAM
MAY 2017



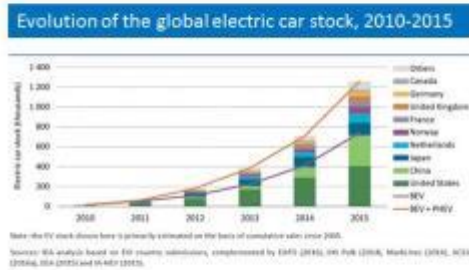
New Propulsion Technologies

- Most forecasts indicate that we are at or near peak use of fossil fuels for transportation use.
- It is, therefore, important for economies to develop policies that foster the growth and development of new propulsion technologies.
- To allow for the most efficient and appropriate technologies to emerge government policies should not favor one technology over another – or be **Technology Neutral**.
- No single technology approach is the solution for the world. Forecasts show a growing demand for a variety of new propulsion technologies in the future.



New Propulsion Technologies

- Demands for specific propulsion technologies vary from economy to economy due a variety of factors such as consumer demand, environmental factors, access to natural energy resources, development of technologies, and government policies.
- It is important for an economy to ensure that they develop the necessary infrastructure needed for a propulsion technology to succeed and grow.



Autonomous Vehicles and Connected Cars

- A connected car may refer to a variety of different types of connected vehicle systems, which can include a wide variety of platforms using different communication and data standards for a range of applications.
- All around the globe, economies are developing and deploying automated vehicle and connected car technologies through government efforts, academic research, private companies, and public-private partnerships.
- Many entities are working on developing and advancing these technologies for vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), or vehicle-to-other moving parts of the traffic system around them (V2X). These entities work to develop and advance the latest connect car application concepts by utilizing the best available and emerging intelligent transportation systems (ITS) and the latest communications technologies.

Source: Center for Automotive Research, Global Harmonization of Connect Vehicle Communications Standards, Jan. 2016; International Scan of Connected and Automated Vehicle Technology Deployment Efforts, Dec. 2016

Activities in the United States

- U.S. DOT has developed an Intelligent Transportation Systems (ITS) program that includes an extensive public-private collaboration to deploy connected car and automated vehicle technology in the United States.
- U.S. DOT has developed a Connected Vehicle Program which focuses on connected car standards and technologies. The program has developed partnerships with over 87 public, private, and academic organizations to test technologies at numerous testbed sites across the U.S. Connected car pilot programs have been deployed in large cities such as New York City and Tampa, Florida as well as interstate testing in Wyoming.
- U.S. DOT has created an Automated Vehicle Program which focuses on testing advance technologies and systems aimed at integrating automated technologies into connected vehicles. U.S. DOT has selected 10 sites around the U.S. to be the automated vehicle proving ground pilot sites.
- At least 13 states have passed legislation and regulations dealing with automated vehicles. A majority of the legislation focuses on defining automated vehicles, regulating on-road testing, regulating deployment, and addressing liability.
- There are over 13 U.S. state and local public-private partnership efforts on developing connected car and automated vehicle technologies. Many of these partnerships are affiliated with universities across the United States.

Source: Center for Automotive Research, International Scan of Connected and Automated Vehicle Technology Deployment Efforts, Dec. 2016

Need for International Connected Vehicle Standards Harmonization Efforts

- A key component of connected vehicle systems is the ability for vehicles and infrastructure to be able to talk to one another in an interoperable manner. As such, standards need to be created centrally and adopted widely. These standards are also required in order to ensure connected vehicle components made by different manufacturers and utilized in different economies around the world work together.
- Harmonizing standards are the minimizing of differences in the technical content of standards that fall within the same scope.
- A key benefit of harmonizing connected vehicle standards is to develop a global marketplace for connected vehicle technologies and applications, allowing the connected vehicle industry to take advantage of economies of scale. If automakers and technology developers can target a broad global market, there will be reduced production costs and accelerating the deployment and adoption of new connected vehicle technologies.
- As economies develop these standards, it is strongly encouraged that they work through the World Forum for Harmonization of Vehicle Regulations (WP. 29).

Source: Center for Automotive Research, Global Harmonization of Connect Vehicle Communications Standards, Jan. 2016

Vehicle Cybersecurity

- As more and more vehicles today have connected technologies allowing them to transmit data to and from an outside source, the chance of this data being hacked grows higher. This data can often contain periphery information and sometimes personal information.
- Economies around the globe as well as automotive manufacturers and their suppliers have recognized this growing threat and are proactively developing guidelines and best practices to combat cybersecurity.
- It is important that automotive manufacturers continue to take a collaborative approach by developing partnerships with academia, government programs, security technology organizations, and others to develop the best and latest technologies and practices to combat this ever changing security threat.
- As economies work to develop guidelines on cybersecurity and data protection for the automotive industry it is encouraged that they work through the World Forum for Harmonization of Vehicles Regulations (WP. 29) to help ensure a harmonization of automotive security regulations.

Source: NHTSA Vehicle Cybersecurity Approach; Automotive Information Sharing and Analysis Center (Auto-ISAC)