



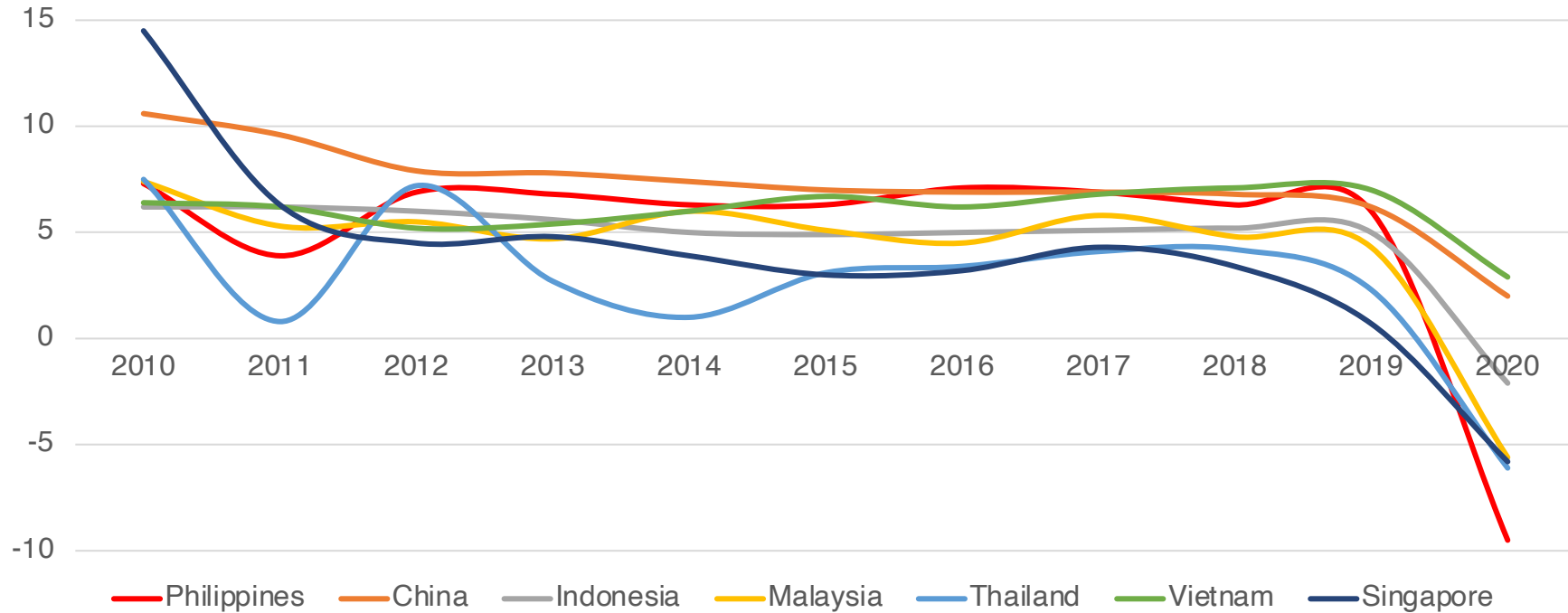
# Do Ecozones Facilitate FDI Technology Transfers & Spillovers to Domestic Firms? Lessons from Philippine Experience

Rafaelita M. Aldaba  
Philippine Department of Trade and Industry  
CSIS-GRIPS-RSIS Webinar on Sustainable  
Growth in ASEAN Countries  
30 March 2021

## PH Macroeconomic Performance

*The growth rate of the Philippines has been one of the highest in the region, however, the country face challenges as the pandemic arises.*

GDP Growth Rate (%) Performance of Selected Asian Countries (2010 – 2020)



	Philippines	China	Indonesia	Malaysia	Thailand	Vietnam
Ave. GDP Growth 2010-2019 (%)	6.4	7.7	5.4	5.3	3.6	6.3
GDP Growth 2020 (%)	-9.5	2.0	-2.1	-5.6	-6.1	2.9

Source: World Bank and Various National Statistical Agencies

## Philippine Credit Rating

Japan  
Credit  
Rating  
System

**A-**  
(Upgrade)

R&I

**BBB+**  
(Upgrade)

Moody's

**Baa2**  
(Affirmation)

Fitch  
Ratings

**BBB**  
(Affirmation)

S&P Global  
Ranking

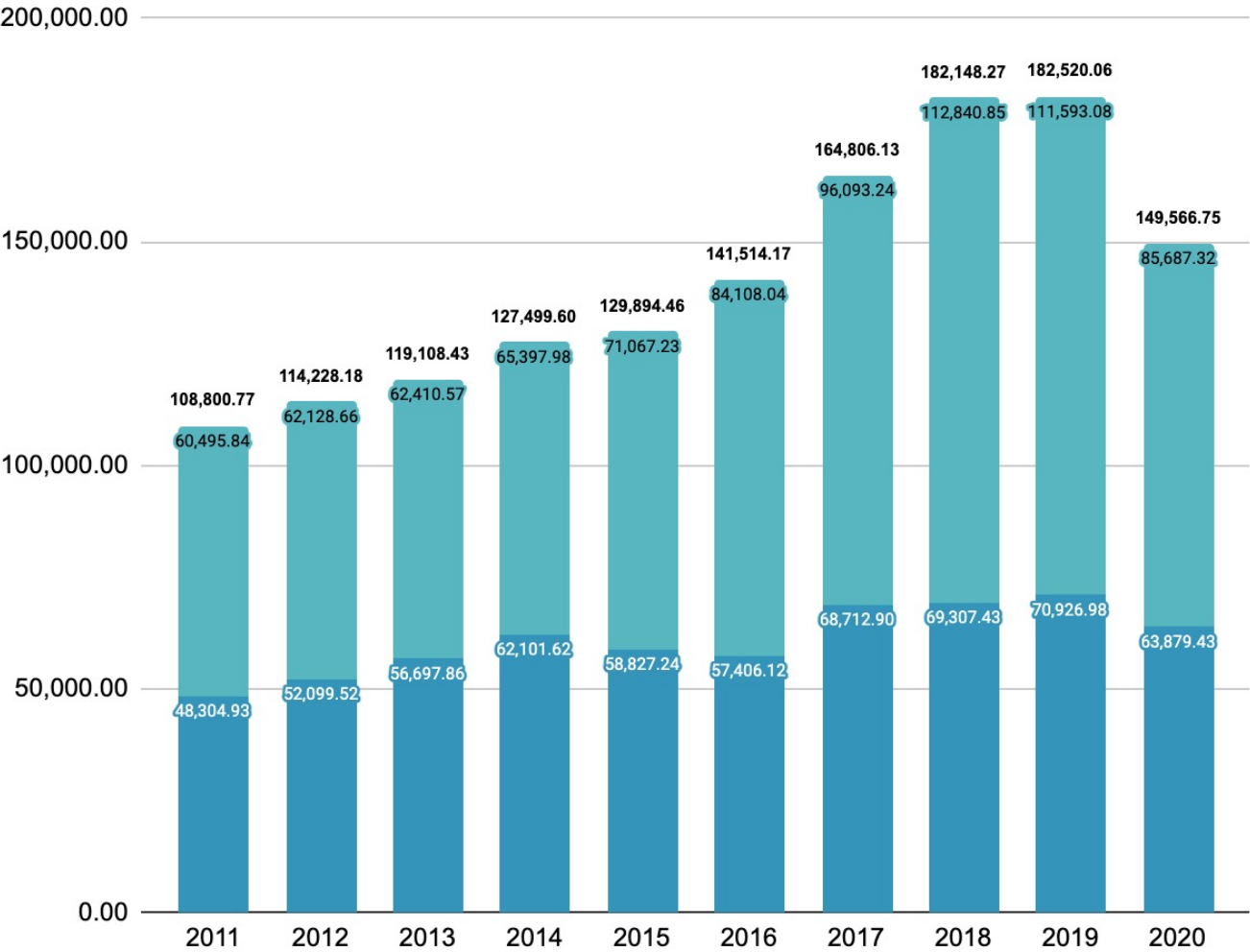
**BBB+**  
(Affirmation)

# Philippine Trade in Goods Performance

*The Philippines is a key participant in the Global Value Chain as seen in the increasing Total Value of Trade, specifically with key partners like the United States of America, Japan, China, and the ASEAN member states*

Philippine Trade in Goods Performance  
in Millions USD (2011 – 2020)

Import Export



Top 5 Highest Trade Value Products  
For Exports and Imports in 2020

Top Export Commodity	Value (USD)
Electronic Integrated Circuits And Microassemblies.	15,509.17 M
Exports Of Finished Products Manufactured From Materials Imported On Consignment Basis	8,699.84 M
Automatic Data Processing Machines And Units Thereof	4,499.44 M
Insulated Wire, Cable, And Other Insulated Electric Conductors	2,118.87 M
Electrical Transformers, Static Converters And Inductors.	1,634.48 M

Top Import Commodity	Value (USD)
Materials, Accessories And Supplies Imported On Consignment Basis	9,266.76 M
Electronic Integrated Circuits And Microassemblies.	6,715.03 M
Petroleum Oils And Oils Obtained From Bituminous Minerals, Other Than Crude	4,190.83 M
Parts And Accessories (Other Than Covers, Carrying Cases And The Like) Suitable For Machines	2,623.96 M
Motor Cars And Other Motor Vehicles Principally Designed For The Transport Of Persons	1,862.83 M

Source: Tradelines Philippines, Department of Trade and Industry

## Philippine Trade in Services Performance

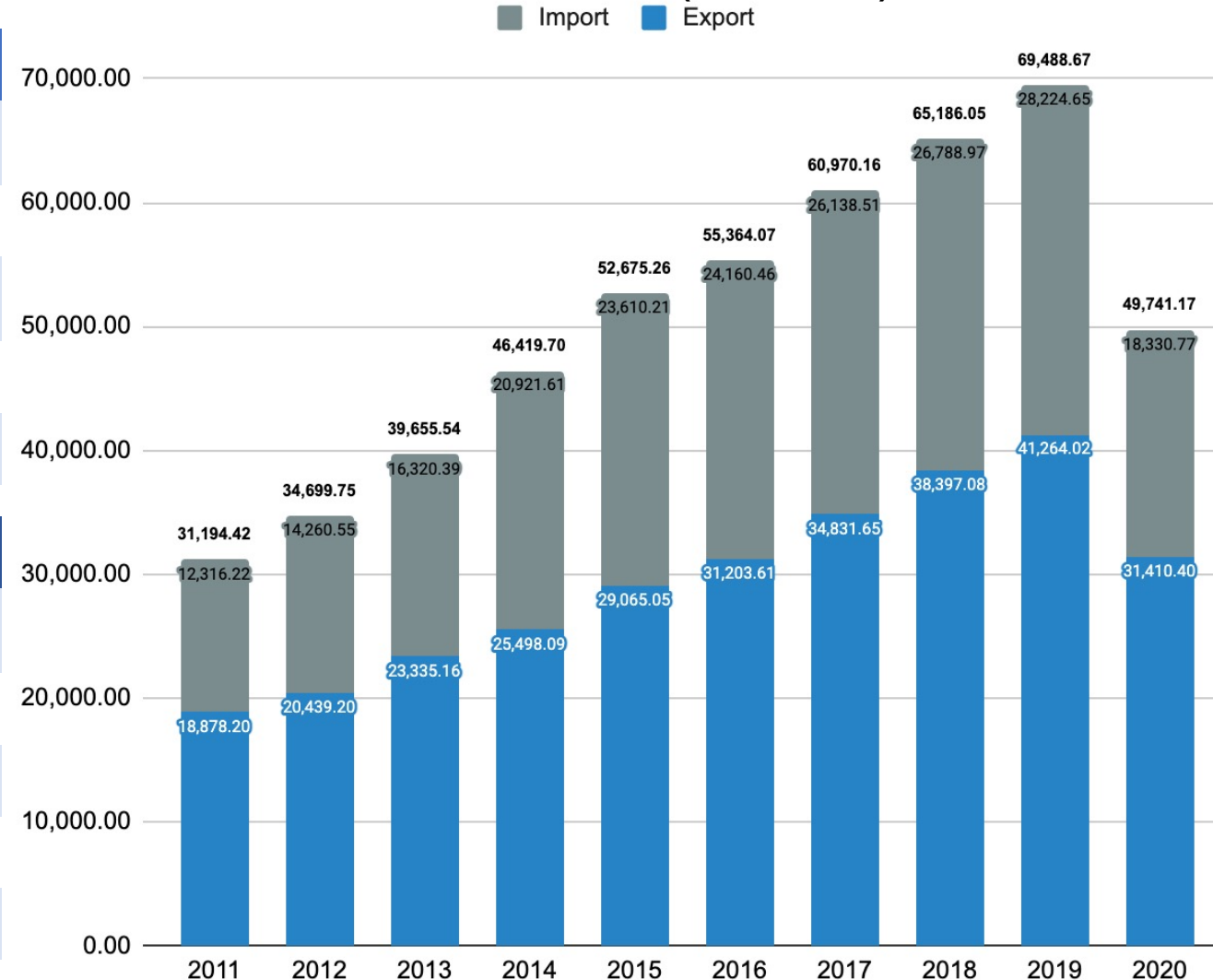
*The Philippines continues to register positive net exports in Services. In 2020, Trade in Services totaled US\$ 49,741M the bulk of which was contributed by Business Services.*

### Top 5 Highest Trade Value Service For Exports and Imports in 2020

Top Service Export	Value (USD)
Technical, Trade-related, And Other Business Services	17,493.25 M
Computer Services	5,187.53 M
Manufacturing Services On Physical Inputs Owned By Others	4,046.35 M
Travel	2,009.61 M
Passenger Transport	759.37 M

Top Service Import	Value (USD)
Technical, Trade-related, And Other Business Services	4,668.53 M
Travel	4,567.88 M
Freight Transport	3,483.71 M
Insurance And Pension Services	1,308.96 M
Telecommunication Services	808.69 M

### Philippine Trade in Services Performance in Millions USD (2011 – 2020)

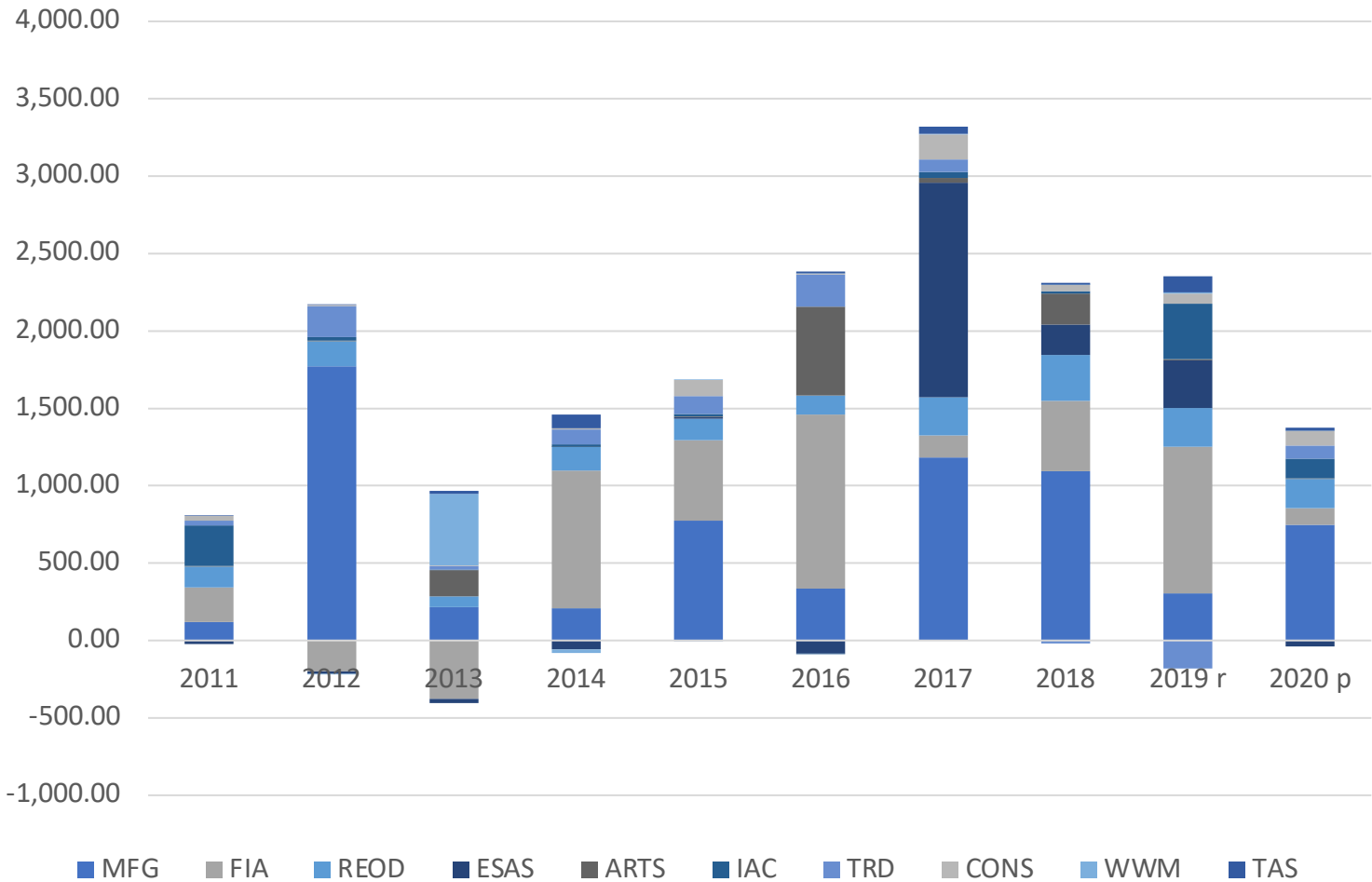


Source: Balance of Payment, Bangko Sentral ng Pilipinas

# Industry Destination of Philippine FDI

*In 2020, 50.51% of total Philippine FDI went to the Manufacturing Industry.*

Net FDI of the Philippines to Selected Industries from 2010 - 2020  
(USD Millions)



2020 Net PH FDI by Industry

Industry	Net FDI	Share to Total (%)
Manufacturing	745.36	50.51
Real Estate Activities	187.90	12.73
Information And Communication	128.11	8.68
Financial And Insurance Activities	111.34	7.55
Construction	96.40	6.53
Administrative And Support Service Activities	90.40	6.13
Wholesale And Retail Trade	83.51	5.66
Professional, Scientific And Technical Activities	25.24	1.71
Transportation And Storage	19.27	1.31
Human Health And Social Work Activities	14.30	0.97

Source: BSP, Net Foreign Direct Investment

# Trade, FDI and GVC Policies

## FDI Liberalization, Economic & Free Port Zones

- From a highly restrictive investment regime to a more open & flexible FDI strategy since 1990s
- Foreign Investment Act (1991): Foreign Investment Negative List
- Further liberalization, negative list shortened except for sectors under the Constitution
- **Restrictions:** mass media, practice of professions, retail trade enterprises with paid-up capital of less than US\$ 2.5 million; exploration, development & utilization of natural resources, land ownership, public utilities, private radio communications network
- **Omnibus Investments Code:** fiscal & non-fiscal incentives to areas identified in the Investment Priorities Plan
- **Economic & Free Port Zones:** promote exports through separate, fenced-in ecozones for export-oriented firms, incentives provided to private zone developers

## PH Exports coming largely from economic zones



- **Philippine Economic Zone Authority**  
80-90% of exports  
74 Manufacturing Ecozone  
262 IT Parks  
22 Agro-industrial ecozone  
19 Tourism ecozones  
2 Medical Parks
- **Subic Bay Metropolitan Authority** (1,648 locators)
- **Clark Freeport Zone:**  
Phoenix, UPS, Nanox, Sumidenso, TI, Rolls-Royce, SMK, L&T, Yokohama, Qatar, Cathay Pacific, Asiana, LBC, Sutherland, etc



# Empirical research findings on economic zones

Authors	Highlights
Hamada '74, Madani '99, WB'92	Zones as 2 <sup>nd</sup> or 3 <sup>rd</sup> best solution to competitiveness & whose success is restricted to specific conditions over a limited time frame
Chen '93, Jayanthakumara '03, Monge-Gonzalez, R-Tijerino, & A-Alpizar '05, Warr '89, (Farole & Akinci '11)	SEZs have been successful in generating exports & employment & come out marginally positive in CBAs
Kaplinsky '93	Zones have failed to extend benefits outside their enclaves or to contribute to upgrading skills & production base
Farole & Akinci '11	E.Asia, L.America, M.East, N.America: SEZs have played an important role in catalyzing export-oriented diversification & industrialization
Akinci & Crittle '08 (FIAS-WB) Philippines	PEZA's OSS reduced cost of business leading to an improvement in firm competitiveness; PEZA successfully combined regulation & promotion leading to dramatic improvements in PH investment climate

- Trade & investment globalization & GVC growth → rapid SEZ growth, especially countries with low labor cost, scale economies, & preferential access to markets of US, EU
- SEZs proved to be a powerful instrument to capture increasingly mobile FDI, boost employment, exports & GVC participation
- **Do MNCs operating in ecozones able to transfer technology and stimulate the economy through linkages?**

# Understanding knowledge transfers arising from MNEs: FDI externalities or spillovers

- FDI increases the rate of technological progress in host country through a “contagion” effect from the more advanced technology & management practices used by foreign firms
- FDI externality or spillover: increase in productivity & efficiency of domestic firms as a consequence of the presence of foreign firms in the domestic economy
- Domestic firms are able to improve their productivity by copying some technology used by MNCs in the domestic market and MNEs are not able to fully internalize the full value of these benefits (Blomstrom, Kokko, & Zejan, 2000)
- Spillovers take place when a multinational affiliate demonstrates or helps prospective suppliers set up production facilities & provides technical assistance to improve products
- Leshner and Miroudot (2008): five different channels through which spillovers are transmitted
  - Skills via labor mobility, exports & infrastructure improvements, imitation, competition, & vertical linkages
- Horizontal: between MNCs & domestic producers in same sector, local firms copy some technology used by MNEs in domestic market
- Backward: domestic firms supply intermediate inputs to MNEs; trainings, management & organization, technical assistance & information to help domestic suppliers
- Forward: domestic firms purchase inputs from MNEs; training & other support provided to support customers



# Firm level characteristics affecting FDI flows to PH manufacturing

- Productivity has a positive effect, more productive firms are more likely to be foreign-owned (partly or wholly)
- Utilities have a negative impact, low electricity, water, & telecommunications costs encourage FDI inflows
- Ecozones have a positive effect, firms in ecozones are more likely to be foreign-owned
- Exports have a positive effect, exporter firms are more likely to be foreign-owned
  - complementary relationship between exports & FDI
  - encourage investments by multinational companies who seek efficiency gains
  - tariff jumping FDI is not the motivation for FDI flows to the Philippine manufacturing industry
  - vertical efficiency motives and important role of GVCs

## Importance of firm productivity, utilities, ecozone location, exports, age

Variable	Model 1	Model 2
TFP	.3887709*** (.0328116)	.3900797*** (.0330349)
utilities	-.6317157*** (.2017387)	-.6345087*** (.202689)
kl	1.10e-08 (1.10e-08)	1.00e-08 (1.01e-08)
age	-.0101617*** (.0034009)	-.01223*** (.0036021)
ecozone	6.422248*** (.1660533)	6.400607*** (.1678303)
xshare	.9194003*** (.0955704)	.9244178*** (.0990335)
HHI	.1133965 (.1557817)	.1571502 (.1596295)
Constant	-8.621591*** (.3433056)	-8.451082*** (.3602939)
Time Dummy	No	Yes
No of Obs	16,725	16,725

Variable	Model 1	Model 2
lnworkers	.3979335*** (.030518)	.3941641*** (.0297304)
lnmaterials	.2289823*** (.0161013)	.2316028*** (.0162749)
lncapital	.0609222*** (.0079986)	.0643922*** (.0084181)
xshare	.231013*** (.0754527)	.2125991*** (.0747905)
RDsh	1.442657 (2.159438)	1.674287 (2.002853)
age	.0138452*** (.0055154)	.0301904** (.0124288)
HHI	-.0703012 (.079861)	-.0965481 (.0800196)
Horlinks	-.0722687 (.1693314)	-.1061748 (.171412)
Blinks	-.2239896 (.3620923)	-.1238024 (.36588)
Flinks	.0563216 (.0528968)	.0472278 (.0519827)
Horlinks*xshare	.0861081 (.1353137)	.0856851 (.1318149)
Horlinks*RDsh	6.851476 (5.370014)	4.485363 (5.247494)
Constant	9.666243*** (.2947287)	9.597295 *** (.3788686)
Time Dummy	No	Yes
No of Obs	10,553	10,553

## Limited FDI spillover effects, domestic linkages

- Potentials for integrating into domestic economy present, but complex rules & regulations have prevented substantial FDI spillover effects from taking place
  - Physically & administratively, zones are treated as isolated policed areas outside the customs territory
  - Goods moved from the zones to the non-free trade area are treated as imports & are subject to customs, taxes, other regulations
  - Confusion abounds on the VAT treatment of ecozone locators due to conflicting Bureau of Internal Revenue rulings & court decisions
- SEZs attracted FDI and provided a platform for vertical & spatial fragmentation of manufacturing into GPNs in auto, electronics, & garments; enabled us to participate in GVCs, generated employment
- Absence of an efficient industry supply base has constrained type of FDI that PH has attracted, mostly manufactured exports that are labor-intensive & require relatively less skills



# Policy Implications: integrate ecozones in the domestic economy to attract more efficiency-oriented FDI & upgrade our GVC participation

- Ecozones can serve as tool to enhance industry competitiveness & attract vertical FDI, need to be integrated with the economy & overall trade & investment strategy, traditional model of separate fenced-off areas solely for SEZ locators no longer works given global economic changes
- To link & embed ecozones with the domestic economy, need more flexible regulations
  - Relax 70-30% rule, allow locators to sell to domestic market, liberalize taxation rules on products sold to domestic market, PH FTAs substantially liberalized tariffs on most products
  - Allow parts manufacturers suppliers to zones to import raw materials VAT & duty free
  - Policy & legal framework should be changed away from fiscal incentives to value added services & more focus on institutionalized process of learning & knowledge transfer
- To strengthen linkages, build and develop supply base of manufacturers of intermediate parts & components
  - With RCEP, potential opportunities could arise from the growth of RPNs & GVCs where domestic parts and supplier firms could act as subcontractors of outsourced parts and components
- To attract more efficiency-oriented FDI & deepen GVC participation, accelerate promotion efforts & creation of enabling environment
  - Infrastructure, supply chain, and logistics to increase efficiency and reduce transactions costs
- Use ecozones to supplement industrialization rather than as isolated free market enclaves
  - Locally-sourced capital & intermediate goods & services; subcontracted work to domestic suppliers should be treated equally as imported counterparts