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Effect of corporate tax rate on foreign direct investment: analysis for India

Ranjana Kumari
Madras School of Economics, Chennai
Corresponding to: ranjanamahla98@gmail.com

Abstract

It is not easy to do business in India. Investment in India is not straightforward or well-ordered. However, it is the era to earn supernormal profit and it offers the golden opportunity to invest. It will not be without risks and disappointment, but rewards will correspond to it. This paper reflected the relationship between corporate tax rates and inflow of foreign direct investment in domestic country and how it affects domestic entrepreneurship using time series data for 40 years (1980-2019). In this study, a linear regression model captured the effect of policy factor corporate tax rates, and other economic factors on Foreign Direct Investment (FDI) inflows. According to findings using mergers and acquisitions, there is a positive relationship between the inflow of foreign direct investment and entrepreneurship. Because of trade liberalism, a small country may now compete for foreign direct investment if it can provide a sufficiently attractive package. But sometimes policymakers cannot make head or tail, so they have lost many of the instruments traditionally used to promote local competitiveness, employment, and welfare. Here, openness is the most significant variable, so to create more incentives for foreign direct investment government should take openness into consideration before making policies.

Keywords: inflow of foreign direct investment, corporate tax rate, domestic entrepreneurship.

Introduction

Foreign Direct Investment (FDI) has been a significant issue for economic globalization. It plays a vital role in the contribution to the country's economic development. According to United Nation Conference on Trade and Development (UNCTAD) in 2019, India became the world's 9th largest recipient of foreign direct investment and deals worth $51 billion. In the world in the post-COVID-19 pandemic period; the growth rate of all countries is low, except for a few countries. So, a lower but positive economic growth in India that attracts investments. In 2018 India's rank was 12th. India was among the top 5 host economies for FDI in the developing Asian region. Host countries like India regard the inflow of FDI as a significant opportunity for spreading their economies into the global market and encouraging their economic upswing. To maximize the gain from FDI in economic development, the host country government recruits various policies and measures, however, the effectiveness of policies remains a controversial issue. IMF definition of FDI is an investment through which an investor acquires lasting and substantial management control (At least 10% is equity or voting rights) in the foreign affiliate. There are different management control ceilings of FDI in India- 26%, 49%, 51%, 74%, 100%. For managerial control, a company needs at least 51% shareholding and for a major decision, a company needs at least 76% shareholdings.

26%- Implies that 74% share of the domestic country has management control (with Indians) but the support of the foreigners is needed for a major decision.

49%- Implies that 51% share in the hands of the domestic country so the managerial control is with the domestic country but the support of the foreigners is needed for a major decision.

51%- Implies that we can say we are basically giving the managerial control to foreigners but the support of Indians is needed for major decisions

76%- Means we are giving the managerial control in the hands of foreigners but, they need the support of Indians for major decisions.

100%- Complete control is with them; they have managerial control and also major decision control in their hands.

FDI depends upon economic indicators, such as location and size of the market, resource availability, export intensity and institutions. Usually, it requires unique and updated techniques, capital management skills. There are two types of FDI 1) horizontal** and 2) vertical. These will lead to spreading globalization and horizontal FDI has an unquestionable advantage. It is helpful to minimize or reduce the risk and uncertainty and share the resources that exist in developed countries. Some companies enter the Vertical FDI to reduce the cost of raw materials used by them or supply important components. Some studies show that FDI is proportionally related to growth in export-promoting countries but negatively in an importing country. A country, which has a broad base and low tax rate, will be a relatively attractive place for highly profitable multinationals, and it will lead to regionalization and globalization of the world economy. In this study, we focus on the issues of corporate tax incentives; this exhibits the impact of the tax system on the choice among several forms. Investors who invest in foreign nations, try to maximize profits at different tax rates and countries. Because of this competition increased among different countries and it will lead to attracting FDI.

Related studies are reviewed as follows: -

In the 1990s, there was huge political disturbance along with other economic problems as a result there was a financial crisis in India. The Indian economy was in a stagnant condition Political instability downgraded the international credit of the country. Based on the literature there are many factors that affect the FDI. So, it is difficult to distinguish the effect of corporate taxation from other variables that are in turn correlated with tax. Earlier, many studies show that on average 1% positive change in the tax rate then FDI will diminish by 3.7% but some other studies find that will decrease in a wider range of 0 to 5%. The literature about the impact of taxation on FDI flows focuses on two main areas: the impact of tax policies and the impact of tax reforms on investors' investment decisions. Most of the earlier studies focused on aggregate FDI data. They paid little attention to differences across sectors, industries, regions as well as countries. Presented is a summary of the major findings below:

Table 1. Thematic area and papers author's name

Thematic Area	Authors
"Tax policy and foreign direct investment " The effect of domestic tax policy on the U.S. economy	Hartman (1985)
"Effect of tax on foreign direct investment"	OECD (2008)
"Determinants of FDI: A sectorial and institutional approach "	James P. Walsh and Jiangyan Yu (2010)
"The Effect of Corporate Tax Rate on Foreign Direct Investment: The A Panel Study for OECD Countries"	Nida, Mine, Mehmet (2016)
"How Tax Policy and Incentives Affect Foreign Direct Investment"	Jacques Morisset and Neda Pirnia (2000)
" Tax differences and foreign direct investment in the EU27"	Hansson, Åsa, and Karin Olofsdotter (2010)
"A review of tax incentive and its impact on FDI in INDIA "	Dr. Vinay Kandpal and Prof P C Kavidayal

Hartman (1985) examines the deep study on the U.S. economy, according to him, the corporate tax when applied to foreign sources of income should be thought of as a tax on the transfer funds, the tax burden on foreign source income should be irrelevant for investment decisions if the home country taxes are deferred.

There is another study based on OECD (2008): it just about the framework (how does tax planning factor in, what policy consideration to taxation inflow and outflow of FDI, etc.) and tax environment for FDI with the need to ensure that a significant share of domestic tax is collected from multinationals.

James P. Walsh and Jiangyan Yu (2010): this study is about the determinants of FDI for different economies such as emerging and developed economies based on a sectoral and institutional approach. According to the result of this study in the primary sector, the macroeconomic variables have little impact on flows. In this sector, the openness coefficient is significantly larger for advanced economies than for developing countries. Whereas macroeconomic variables play a significant role for both secondary and tertiary FDI, while larger macro conditions have similar marginal effects on secondary FDI among both developed and developing economies for tertiary FDI, stronger macroeconomic conditions are much more important to attracting FDI to developed economies. According to this study, labour market flexibility and financial depth are significant determinants of FDI, while a strong basic structure (infrastructure) and a more independent judiciary attract more tertiary FDI.

Nida, Mine and Mehmet (2016): “The Effect of Corporate Tax Rate on Foreign Direct Investment: A Panel Study for OECD Countries.” This study is based on two areas: a) Impact of tax policy and B) Impact of tax reform on investor's location decision.

They use the GMM estimation and find the relationship between corporate tax rate and FDI flows. According to the result, FDI and corporate tax rate are negatively related to the period 2003–2013 (endogeneity issue also considered) and positive relation among GDP and FDI, but they do not find any significant coefficient for population and unemployment variable.

Morisset and Neda (2000): “How Tax Policy and Incentives Affect Foreign Direct Investment” this study was conducted in different phases on the U.S. economy based on primary data from field research through interviews of a group of different companies (domestic as well as foreign investor companies). As per the result, they conclude that if tax policy matters, it is not the most influencing factor in the site selection of multinationals.

Hansson, Åsa, and Karin (2010): this study opined that, new countries can attract FDI due to lower tax rates, but old member countries can attract FDI even if they implement higher tax rates and it may be possible through agglomeration economies but in new member countries agglomeration advantage may decline.

Dr Vinay Kandpal and Prof P C Kavidayal: “A review of tax incentive and its impact on FDI in India “. It states that FDI has helped to increase the output, productivity and employment in some sectors. Countries receiving substantial FDI are relying less on tax holidays than on low corporate tax regimes.

Based on these perceptions the early literature attempt to determine the tax policy was one of the key factors in the decision-making process of foreign investors. From econometrics analysis, most of the earlier studies use the panel data estimation of the responsiveness of FDI to annual variation in tax rates.

So, based on the literature, an attempt was made to find out the relationship between FDI inflow and corporate tax rate for India using secondary data from 1980 to 2019.

(* Tax holiday offers a tax reduction or elimination to business. This is the government incentive program that is used by the government in developing countries to stimulate foreign investment. It is believed to increase long-term tax revenue.

** Horizontal FDI: it means the investor establishing the business in a foreign country as it operates in its home country, and the company wants to take the benefit of the international platform by selling their goods and services.)

Objective

Worldwide almost all countries compete to attract FDI into their economies. FDI inflows are always believed to help boost economic growth and achieve sustainable development of the host countries. Policymakers and government officials of these countries may attract FDI into their economies and primarily should know how to create the most suitable environment for FDI. For developed and least developed economies, the tax has little or no impact on FDI whether FDI also depends upon some important determinants but why does the government continue to rely so much on tax policy when in fact tax is just one factor. So, the main objective of this study is:

1) Does tax matter for foreign direct investment or how sensitive is FDI to corporate taxation?
2) Effect of inward FDI on domestic entrepreneurship.

Determinants of FDI

According to the experimental studies, the determinants of the flow of FDI are classified into two sides: the demand side and supply side and four subgroups: a) economic, b) social, c) political and d) policy factors. The demand side includes the variables which are related to the host country. So, these will be country-specific. The supply side includes the variable which is related to the investment company (country-specific). In this study, we take policy factor-corporate tax as the main variable.

Tax is a significant factor of FDI, but it is not the main determinant of FDI. Other than tax, FDI is attracted to countries offering market size, openness, profit opportunities, a predictable and nondiscriminatory legal and regulatory framework, inflation, macroeconomic stability, skilled and responsive labour market, well-developed infrastructure, etc. All these factors will influence the long-term profitability of a firm. Here the market size is considered as one of the significant determinants; it directly affects the investment return and margin of investor firms. If profit is larger then, it is a positive sign for foreign investors to invest in the host country. For example, China and India's FDI is almost positively related to the host country's market size and to attract FDI, both countries' FDI is attracted to the location with a large market size. Zhang (2001) also found the same result and confirmed that the level of infrastructure and market size are key elements in attracting FDI. The stability of the currency value of the host country can attract more investment into the host country and devaluation of the home currency would lead to a downfall in FDI as well as volatility in exchange rate discourage foreign investors to invest in a host country. The relationship between FDI, wages and productive capacity of a host country creates a suitable environment for FDI in terms of low wage rate and fixed entry cost that tends to attract more foreign investors. Some experts find in their studies that financial crises have a strong downturn impact on FDI inflows. FDI is an important channel for developing countries to tap advanced technology developed by R&D leaders. According to the Heritage Foundation*, economic freedom there is a positive relationship between economic growth and freedom, and improvement in growth attracts more FDI.

(*Heritage foundation: It is an official website that provides information on world economic freedom.)

Figure 1: Determinants of FDI

Data and Variable Description:

Here we use the secondary data and world development indicators database to collect an explained and explanatory variable over the period 1980 to 2019.

The variables:

This section describes the definition of explanatory and explained variables used in this analysis.

FDI (foreign direct investment):

An investment made by a firm or individual in one country into another country. It captures the sum of equity capital, reinvestment of earnings, and other long-term and short-term capital.

GDP (Gross domestic product):

It is the annual growth rate of GDP at market prices based on local currency (the Indian rupee). Investors consider from the growth rate perspective. So, there is a better opportunity in the rapidly growing countries than the ones growing slowly.

Corporate Tax revenue (TR):

This variable captures the corporate tax revenue. FDI flows may affect corporate income tax revenues through increasing domestic capital stock.

Corporate tax rate (CTAX):

Some studies show that there is an inverse relationship between corporate tax rate and FDI flows but on another side, some studies show a positive relationship. So, in this analysis, we must conclude regarding this relationship in the case of India.

Inflation (INF):

It shows the annual growth rate of the Consumer Price Index (CPI). It shows the increase in prices of all commodities in the economy. It captures the lack of monetary discipline.

Population (POP):

It is the annual growth rate of the population. Here it is accepted as market size. Since FDI is increasing with the market size. So, the population should have a positive impact on FDI.

Unemployment rate (UNR):

It is the share of the labour force that is without work but available for job hunting (World Bank definition).

Openness (OPEN):

This variable is the ratio of trade or ratio of Export-Import to GDP. The degree of openness of a country in international trade should be a relevant factor in the decision. Some studies show a positive relationship between FDI and openness.

Openness: (Export +Import)/GDP

Data source

FDI inflows, Inflation, Population, Openness, Unemployment (Provided by international labour organizations): these variables were taken from the World Bank. The World Bank is a financial institution that provides a financial extension to low- and middle-income countries for the capital project. The variable corporate tax rate was taken from KPMG, Ministry of Commerce database, financial bills, and corporate tax revenue was taken from the Ministry of finance. KPMG is a global network of professional firms providing Tax, Advisory Services and Audit.

Methodology

In this analysis, we use linear regression where there is more than one independent variable or multiple independent variables.

$$FDI_t = \beta_0 + \beta_1 CTAX_t + \beta_2 OPEN_t + \beta_3 UNR_t + \beta_4 POP_t + \beta_5 INF_t + \beta_6 TR_t + \beta_7 GDP_t + \mu$$

FDI_t: Inflow of FDI at “t” period

$CTAX_t$: Corporate tax rate that implemented on foreign companies

Which operating in INDIA at a time “t”

$OPEN_t$: Ratio of Export-Import to GDP at “t”

UNR_t: Unemployment rate at “t”

POP_t: Annual growth rate of population

INF_t: Annual growth rate or consumer price

TR_t: Corporate tax Revenue

GDP_t: Annual growth rate of GDP

μ: Error term

Here the explained variable is FDI inflow in India at a time “t” as a percentage of GDP. Here, we consider CTAX (corporate tax rate that implemented on foreign companies which operate in India at time "t") as our main explanatory variable and another explanatory variable that influences the inflow of FDI that are GDP, Inflation, Population growth, Unemployment rate, corporate tax revenue, Openness (ratio of export-import to GDP) of the economy.

Results and Discussion

Results

Openness: The coefficient of trade openness is highly significant at 5% level. The coefficient of openness is 0.0552. It is suggested that a 1% increase in FDIs trade openness will increase by 0.0552% if all other things are constant.

Population growth annual: Population is revealed by the results to have a positive relationship with FDI. It suggested that a 1% change in population growth will increase the FDI by 1.185%.

GDP: Most studies have indicated that market size is a significant determinant of FDI and hence have utilized it in the estimation. Findings suggest that a one percentage point increase in GDP was expected to decrease by 0.0413%. This is not in line with the literature review.

Table 2: Analysis Variables and Foreign Direct Investment Net Flow

VARIABLES	Foreign direct investment net inflow
Corporate tax rate	-0.0196
	(0.0228)
OPENNESS	0.0552***
	(0.0151)
Unemployment	-0.103
	(0.116)
Population growth annual	1.185
	(1.424)
Inflation consumer prices annual %	-0.00981
	(0.0277)
Corporate Tax Revenue	7.98e-08
	(1.41e-07)
GDP Annual growth rate	-0.0413
	(0.0391)
Constant	-0.902
	(1.833)
Observations	40
R-squared	0.806

Standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

As per the result here only one variable is significant.

Unemployment: Findings suggest that a percentage point increase in unemployment is expected to decrease FDI by 0.103%. The intuition behind this is that a decrease in unemployment raises the disposable income of a population implying that the market becomes relatively more endowed thereby encouraging investment.

Corporate tax rate: Here the coefficient of the corporate tax rate is almost insignificant. The corporate tax has a negative effect on FDI, which is in line with previous research and findings suggest that a percentage increase in the current corporate tax rate FDI will reduce by 0.01%.

Inflation: according to the result there is an insignificant negative relationship between inflation and FDI. So, the depreciated currency is more associated with FDI.

Inward FDI and domestic entrepreneurship:

Today, the country is one of the most attractive destinations for foreign direct investments. In fact, P.M. Modi calls India a land of golden opportunities. FDI by an individual or a company based outside the country is regulated through two routes-Automatic and Approval:

1. The automatic route: Under this route investment into different sectors are less restricted than others. Norms and regulations are more liberalized for foreign direct investment. Here, the overseas investors or the Indian company does not require any approval from the RBI or govt. of India for investment into the country.
2. Approval route: The approval route is a little restricted. The foreign investor or the Indian company has to take prior approval from the RBI or the govt. of India before making an investment.

Any country is based on five pillars- Economy, Infrastructure, System, Demography and Demand. The discipline of entrepreneurship generally studies the why, when, and how of opportunity creation, recognition and utilization. Hence, a widely quoted definition of entrepreneurship is that it is about the discovery and exploitation of opportunities (Shane and Venkataraman 2000). Bawmol (1990) recognized that not all opportunity exploitation will necessarily be in society's best interest and he defined entrepreneurs very broadly as people who are ingenious and creative in finding ways that add to their own wealth, power and prestige. Thus, entrepreneurial talent can be allotted in ways that retard economic development. The impact of FDI on entrepreneurship is not clear prior with possibilities of both a negative effect (crowding out) and a positive effect. There is a positive spillover via dissemination of technology or negative because of crowding out. FDI and domestic entrepreneurship in aggregate and intra industry to be negative. So, policies need to consider how to counteract this effect.

The advantages and disadvantages of FDI are not absolute and do not deal with good or bad policies. The literature linking FDI and economic development in the host economy mostly addresses the spillover productivity effect via the dissemination of innovations on locally owned firms (Barrios et. al., 2005, Ajyagari and Kosova, 2010). Other avenues for positive spillovers include demonstration effects (Barry et. al.,2003). Negative spillovers can drive from for example reduced market competition through entry deterrence in the style of Dixit (1980) or crowding out (Ceaves, 1996). Furthermore, the mechanisms of negative and positive effects depend on whether foreign and domestic firms are horizontally (intra-) or vertically (inter-) related to each other (Javorcik and Spatareanu, 2008).

Mergers and acquisitions are alliances of two or more two companies' futures or one company taken over by another. Acquisition leads to the purchase of a company by another and a new company is formed and a merger leads to the formation of a new company or it is a combination of two companies to form one. India in recent has seen great potential in the case of Mergers and Acquisitions deals. Most of the Indian companies are growing to gain access to new markets. The volume of Mergers and Acquisition deals has been trending upwards particularly in the fields of FMCG, telecom, Pharmaceuticals, Automotive metals etc. Almost all sectors have been opened up for foreign investors in different degrees which have attracted this market and enabled the industry to grow.

In this analysis, we examine the relationship between FDI inflow and merger and acquisition on domestic entrepreneurship. The scatter plot indicates that the FDI inflows and Mergers & Acquisitions are almost positively related over 1996 to 2019. But we can't identify the exact relationship through this because entrepreneurship not only depends upon FDI inflow or M&A but other factors also. So, there is a higher chance of the presence of positive spillover.

India is becoming a highly sought-after destination for M&A deals. This also means that it is now more vulnerable to the impulses and uncertainties of the global economic scenario. M&A also consists of issues and challenges like working in a global environment, language barriers and planning integration, strategic planning, etc., while arranging M&A exchange there are numerous issues that ought to be tended to in advance. The objective organization and the getting organization ought to consider the accompanying issues while examining an exchange with growing new fiscal modification policy, the former P.M. of India Dr Manmohan Singh said, "You are a global company and India is not on your map, acquisitions are suitable and more rampant feature of the Indian corporate landscape". Considered to be the lifeblood of Indian business now, it needs support and constancy to ensure that it remains progressive in the coming years.

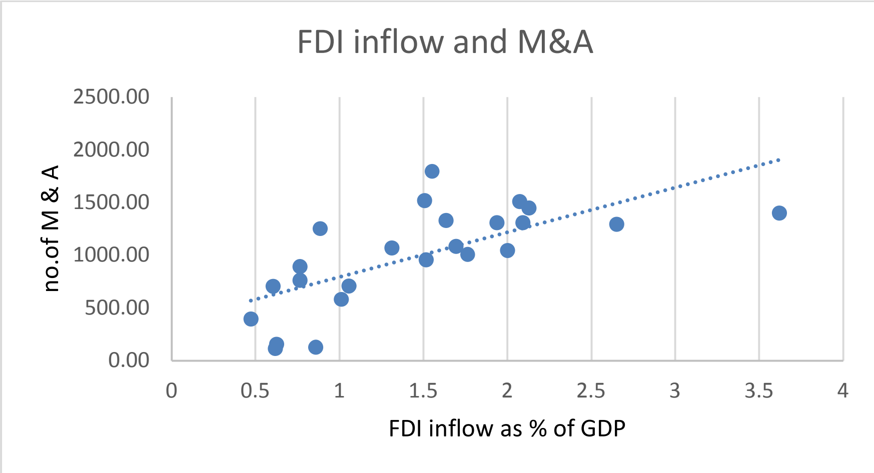

Figure 2: Trend line between FDI and M&A

India must concentrate upon refining the process, increasing the simplicity in doing business and abroad and the legalities involved in them. It is not wrong to say that the Mergers & acquisitions in India and the system related to that are in the infant stage, but this economy is huge enough to provide opportunities for foreign investments.

Discussion

To understand the inflow of FDI with respect to corporate tax we know that India has a large market size that is engaged with many countries through FDI after trade liberalization. Attracting potential FDI into the country with a lower corporate tax rate would lead to a rise in entrepreneurial activity and it represents the extent to which new value is added to the economy in terms of job creation or technological innovation. For the effective promotion of FDI, a country should be both cooperative and competitive with its neighbouring partners. The government has to adopt a much more active and dynamic attitude towards FDI by constantly upgrading the level of research and analysis as well as advocacy on their country's comparative advantage. According to this analysis, the variable openness mostly affects the FDI. So, to attract more and more FDI or to create more incentives for foreign direct investment in domestic countries, the government should take openness into account before making policies.

Conclusion

As per the study according to results and discussion, India needed a strategic component of investment for sustained economic growth and development. This paper applied a linear regression model where more than two independent variables are existing and examined the incidence of the corporate tax rate. Make Innovative policies and good corporate governance, practices on par with international standards by the government of India to attract more and more foreign capital in various sectors of the economy to make India a developed economy. Finally, the familiar results concerning the government of India should take into account the variable openness and make more effective and more creative policies. In this way, India can become more progressive, more responsive, more productive, and the most important era of golden opportunities for investors.

References

Abdioğlu, Nida, Mine Biniş, and Mehmet Arslan (2016). "The effect of corporate tax rate on foreign direct investment: A panel study for OECD countries." *Ege Academic Review* 16, no. 4, 599-610.

Azman-Saini, W. N. W., M. Farhan, C. L. Tee, and Y. L. Tun (2018). "FDI inflows and R&D activity in developing countries." *International Journal of Economics and Management* 12, no. S2, 509-521.

Bartels, Frank L., and S. A. de Crombrugghe (2009). *FDI policy instruments: advantages and disadvantages*. United Nations Industrial Development Organization.

Danakol, Seçil Hülya, Saul Estrin, Paul Reynolds, and Utz Weitzel (2017). "Foreign direct investment via M&A and domestic entrepreneurship: blessing or curse?." *Small Business Economics* 48, no. 3, 599-612.

Estrin, Saul, Seçil Hülya Danakol, Paul Reynolds, and Utz Weitzel (2014). "Foreign direct investment and domestic entrepreneurship: blessing or curse?".

Hansson, Åsa, and Karin Olofsdotter (2010). *Tax differences and foreign direct investment in the EU27*. Department of Economics, Lund University.

Hartman, David G. (1985). "Tax policy and foreign direct investment." *Journal of Public Economics* 26.1. 107–121.

https://www.oecd.org/investment/investment-policy/40152903.pdf

Kandpal, Vinay, and P. C. Kavidayal. "A review of Tax Incentives and its impact on Foreign Direct Investment in India."

Klemm, Alexander, and Stefan Van Parys (2012). "Empirical evidence on the effects of tax incentives." *International Tax and Public Finance* 19, no. 3, 393-423.

Morisset, Jacques, and Neda Pirnia (2000). "How tax policy and incentives affect foreign direct investment: a review."

Rosenkranz, Stephanie, G. U. Weitzel, and S. Danakol (2013). "Foreign Direct Investment and Entrepreneurship."

Shane, Scott, and Sankaran Venkataraman (2000). "The promise of entrepreneurship as a field of research." *Academy of management review* 25, no. 1, 217-226.

Ucal, Meltem, Kivilcim Metin Özcan, Mehmet Huseyin Bilgin, and Julius Mungo (2010). "Relationship between financial crisis and foreign direct investment in developing countries using semiparametric regression approach." *Journal of Business Economics and Management* 11, no. 1, 20-33.

Uvalic, Milica. "Saul Estrin." (2016).

Walsh, Mr James P., and Jiangyan Yu (2010). *Determinants of foreign direct investment: A sectoral and institutional approach*. International Monetary Fund