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## DEBT AND INVESTMENTS: ANALYSIS OF SELECTED COUNTRIES

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**Abstract.** Starting with overview of existing approaches to meaning and use of the terms the paper focuses on analysis of two indicators vital in any economy – debt and investments. It discusses the differences of sovereign and country debts as well as internal and external debts. Public debt is important indicator for government performance evaluation but outcome and impact of total external debt should be on focus too for sustainable growth of any country. The article discusses the results of analysis conducted with regard to the gross public debt, gross external debt by sectors. Further analysis is focused on Foreign Direct Investment and External Debt stocks of the selected countries which are from developing and emerging economies. Empirical analysis of external debt and foreign direct investments of Kazakhstan is carried out as of the country which leads the list of Foreign Direct Investment related component of the external debt. We discuss the important factors to be further investigated with regard to debt management and investment policy of a country.

**Keywords:** external debt; foreign direct investment; investments; public debt; quasicorporations

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**JEL Classifications:** M21, O31

## 1. Introduction

When used correctly, public debt improves the standard of living in a country. That's because it allows the government to build new roads and bridges, improve education and job training, and provide pensions. This spurs citizens to spend more now instead of saving for retirement. This spending by private citizens further boosts

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economic growth. Whether a government spends on social security, health care, or others, it's pumping money into the economy. That boosts economic growth because businesses expand to meet the demand created by spending. That usually results in new jobs, which expected to have a multiplier effect in stimulating further demand and growth. As long as the sovereign debt remains within a reasonable level, creditors feel safe that this expanded growth means they will be repaid with interest.

Debt to GDP ratio is considered as an indication of how likely the country can pay off its debt. The ratio is usually related to public debt and public debt is one of sources to finance public expenditures. If the government has a shortage in public income to finance its activities experiencing a deficit of funds the solution may be a borrowing. But “public debt” may mean central government debt as well as debts of all branches of government. Moreover, depending on domestic legal jurisdiction, public debt may or may not include debts carrying a government guarantee. Analysis of any type of debt requires to make sure the definitions as they may be not the same and measured differently if called identically, for example, what is actually included in sovereign debt by the debt rating agency may not be the same as defined by the international institutions.

The ability to service a debt depends on the size of the debt, on the conditions of borrowing, the nature of the use of the loan, the prospects for the development of the borrower and the economic situation. Debt may be there in a result of investment decision, cash flow management problems and/or extraordinary events what may impact on a country's performance. Nations finance their debt through bonds or can also take on loans directly from banks, private businesses or individuals. Some also borrow from other countries. Depending on a borrower's residency the debt may be internal/domestic or external. Total gross external debt includes, as a rule, the external debts of all branches of government as well as private debt that is issued by domestic private entities under a foreign jurisdiction.

Investors drive up interest rates in return for greater risk of default. That makes the components of economic expansion, such as housing, business growth, and auto loans, more expensive. To avoid this burden, governments must be careful to find that effective “point” of public debt. It must be large enough to drive economic growth but small enough to keep interest rates low. Investment is referred to the purchase of capital goods being interchangeably called capital and meaning all manufactured aids used in producing consumer goods and services. The paper discusses the results of Gross External Debt Position analysis of 75 countries the data for which are available from “Quarterly External Debt Statistics SDDS”. In addition to “External Debt-To-GDP” ranking the analysis reveals the debt position by sector – general government, central bank, deposit-taking corporations except the central bank, other sectors and Direct Investment Intercompany Lending.

Increase in government spending, which, through budget deficit, gets added to the debt contributes to a growing economy as well as foreign direct investments (FDI), which, in principle, should contribute to investment and growth in host countries.

## **2. Literature review**

The national debt becomes a sovereign debt – debt instrument issued by a sovereign government, most sovereign debt takes the form of bonds: used interchangeably with the terms national debt, public debt – crisis when the country is unable to pay its bills. The first sign is when the country finds it can no longer get a low-interest rate from lenders. Banks worry that the country cannot afford to pay the bonds and fear a debt default they may require higher yields to offset their risk what, in its turn, may cause more costs what the country may face to

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refinance its debt. The ability to pay off its debt by the nation is measured through commonly used Debt-To-GDP (Debt/GDP) ratio. The higher the ratio, the higher the risk of default what may worry investors.

Consequences of government deficits what leads, as a rule, to a borrowing and cumulatively, from year to year, becomes a “government” or “public” debt was discussed with the point of immediate consequence – paying more and more interest. Economists have traditionally argued that government borrowing, just like individual borrowing, may be justified relative to the purpose for which the money is used. By borrowing, the government places the burden of reduced consumption to future generations. Foreign indebtedness may increase, reducing future standards of living (Stiglitz, 2019; Zhao, Liu, Liu, Usman, Dutta, 2020; Mazzanti, Mazzarano, Pronti, Quatrosi, 2020).

The impact of Debt to the economy is one of matters what requires thorough analysis based on reliable data. The matter is on discussion of researchers during the last two to three decades. Debt discussion is necessarily conducted from the point of view of developed or developing countries dividing countries along economic prosperity (Bengoa, Sanchez-Robles, 2017). Debt is considered together with capital flow and impact of debt to economic growth may be assessed through its effect to investment, exchange rate, inflation, unemployment, etc. Some researches highlight the problems of mismanagement and relevant policies while others suggest that foreign direct investment is positively correlated with economic growth in the host countries (Ndubuisi, 2017). Another group of researches pointed out a critical level (or ‘tipping point’) when the debt may weaken GDP growth. Some studies found so-called ‘tipping point’, the level of Debt-To-GDP, 77% for any and 64% for developing countries, exceeding what may cost the country, 1.7 and 2 percent, respectively, in economic growth (Caner, Grennes, Koehler-Geib, 2018).

Countries of Eurozone follow the rule of critical level referring to the ratio of gross government debt to GDP not higher than 60% set by The Maastricht treaty in which “General government gross debt” is defined “as consolidated general government gross debt at nominal (face) value, outstanding at the end of the year in the following categories of government liabilities (as defined in ESA 2010): currency and deposits, debt securities and loans. The general government sector comprises the subsectors: central government, state government, local government and social security funds” (Official site of Eurostat, 2019).

The majority of EU countries satisfy The Maastricht criteria (Figure 1). Experiences of OECD countries for the period considered are worth to note: Luxemburg’s public debt doubled in 2008 achieving 14,9% comparing to 7,7% in 2007, some countries – Latvia, Portugal, Slovenia, Slovak R., Spain and UK – suffered high level, 2 and more times higher than in 2007, public debts by 2014 and only few of them could manage to reduce the level. Interesting experience of two more countries – Ireland and Norway – may be learnt further: Ireland’s public debt increased to 120% in 2013-2014 from 23,9% in 2007 and dropped to 76,9% in 2015 continuing to go down to date, Norway experienced decrease of public debt from 49% in 2007 to 27,4% by 2011 what kept further few years but significantly increased, more than 50%, during the last two years of the period considered.

The global composition of government bond stocks is particularly interesting where G-7 governments account for 75% of all government bonds outstanding with 55% accounted by two governments – US and Japan – while the other five 20%. As the researcher states, “Debt-to-GDP ratios continue to rise, because investors simply have nowhere else to go” and “only a handful of governments have the economic and institutional means of supplying bonds in the quantities needed to fulfil this safe haven function” (Lysandrou, 2017).

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Public debts of Developing Economies and Emerging Market Economies are significantly low comparing to governments of developed countries with Singapore which is in the top of selected countries with increasing PublicDebt-To-GDP ratio in the period after 2015 reaching 112.9% in 2018. Ukraine has the highest ratio among the Emerging Market Economies countries from 2014 what may be explained by the political instability and relevant economic situation in the country. Significant increase of ratio in case of Azerbaijan and Kazakhstan is likely due to a fall in oil prices. Particularly, in Azerbaijan, the ratio achieved 48,4% being almost four times higher than in 2009 (12,4%).

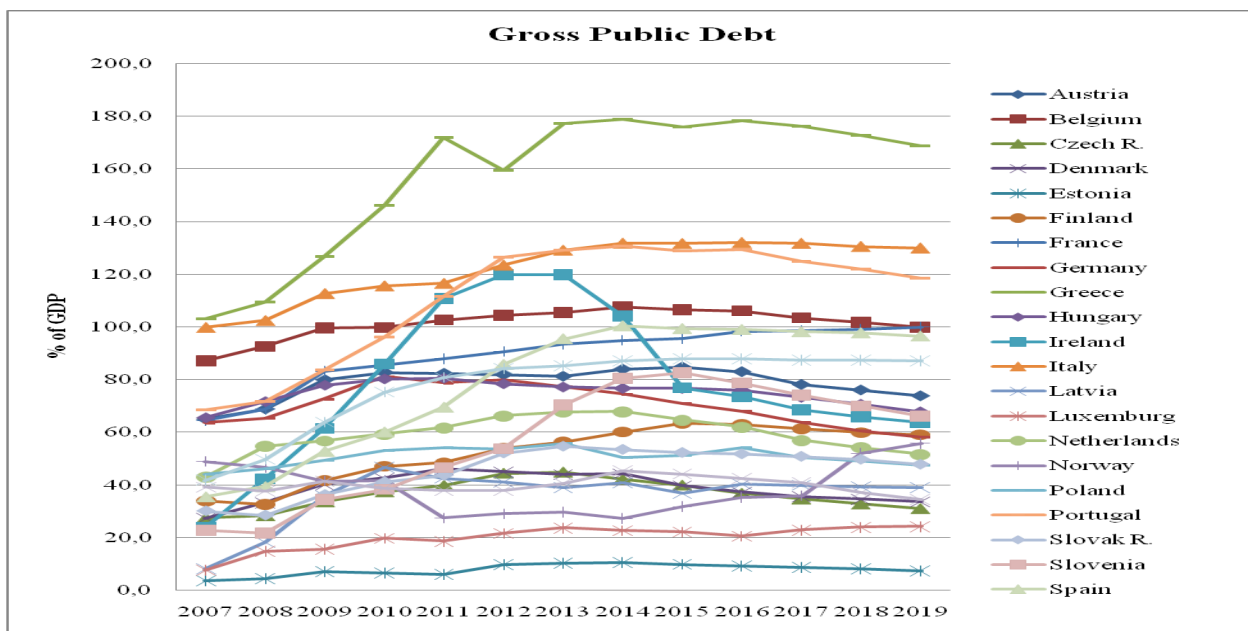


Figure 1. Gross Public Debt, OECD countries, years 2007-2019  
 Source: compiled by authors according to data of OECD

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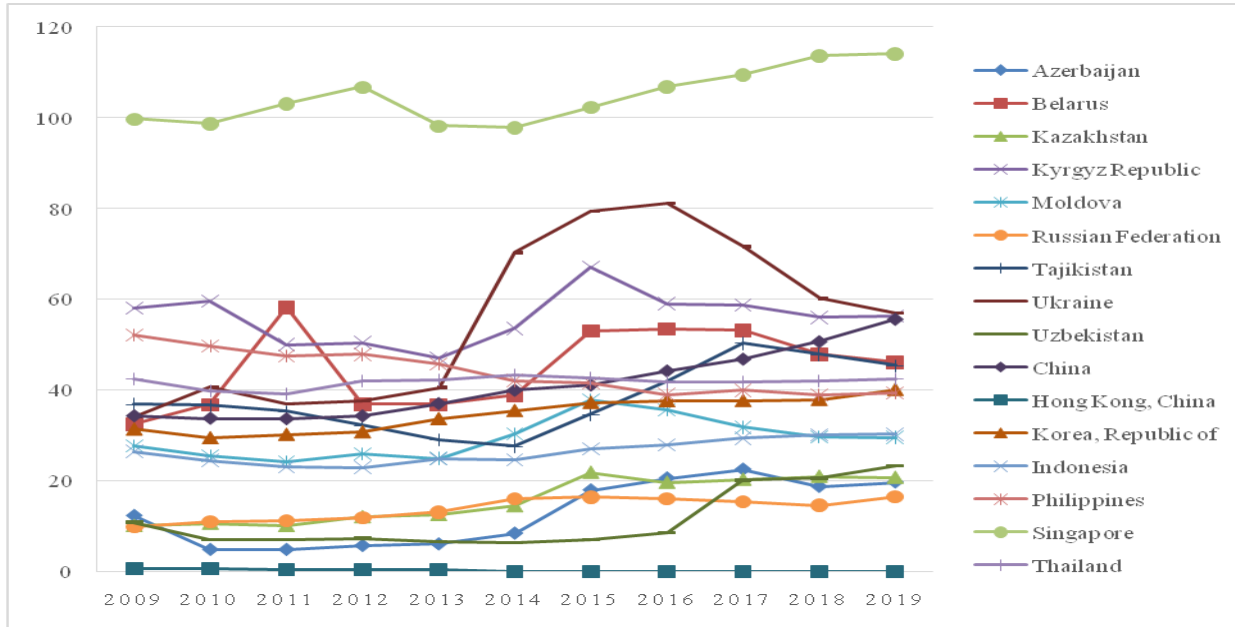


Figure 2. Gross Public Debt, selected Developing Economies and Emerging Market Economies (% of GDP)

Source: compiled by authors according to data of IMF, Fiscal Monitor

Low level of public debt, comparing to OECD countries (Figure 2), characterizes the public finance situation in transition economies what may be explained by different factors from the significantly different starting point (“transition” from one system to another comparing to the countries which has a historically different economic and political situation) to the risks associated with a country’s political regime.

Within the neoclassical economic paradigm, economic efficiency is the benchmark by which both market outcomes and government intervention are judged. Public borrowing within a democracy is a means by which state-based intermediation replaces market-based intermediation. This replacement might be universally beneficial or it might be beneficial to some but not to others, with the outcome depending on the institutional arrangements within which political and fiscal outcomes emerge (Jürgen, 2018).

Discussions on Debt consider the risk of triggering a crisis of confidence in the ability to repay debt, mainly focusing on “government debt”. Public borrowing is significantly discussed in investigations with regard to impact of public expenditure on economic growth (Sasmal, 2018) and relationship between economic growth and other factors – investment, private and government consumption, trade openness – with a focus on sustainability of growth (Pegkas, 2018). A number of investigations attempt to assess a sustainability of the debt policy (Aviral, 2016) and a systematic long-term relationship between debt and structural primary balance (Beqiraj, 2018).

Both key words “growth” and “sustainability” of development is actively discussed in studies of the past years from several points of views, riskiness of high indebtedness with negative effect to fiscal policy and investors’ perception, examination of the relationship between sovereign credit ratings and FDI inflows (Bayar, 2016), trying to understand the boundaries and effects of debt-based financing of public investments (Ari, 2018). Development of macroeconomic policies for achieving future growth targets in long-term perspective and

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relationship between growth and imbalances are considered with study of the fiscal policy issues (Akar, 2019), the effects the foreign exchange market and regulation of capital flows and “appropriate industrial policy” (Landesmann, 2018).

Some authors shed new light on the debt-growth relationship looking at the determinants of transfers and investment in order to understand the effect of debt to an economy and suggest that there is a negative marginal relationship between debt and growth at intermediate levels of debt (Cordella, Antonio Ricci, Ruiz-Arranz, 2015). Nur Hayati Abd Rahman found that there is no mutual consensus on the relationship between public debt and economic growth referring to less studied effects of public debt on the economic growth in the upper-middle-income economies (Rahman, 2019).

The total country debt is the sum of public and private debts each of which, in its turn, is the sum of internal and external debts. Or relatively, the country’s external debt may be both public and private, representing the capital flow from non-residents to public and private entities of the country. In accordance with the IMF glossary, “Gross external debt, at any given time, is the outstanding amount of those actual current, and not contingent, liabilities that require payment(s) of principal and/or interest by the debtor at some point(s) in the future and that are owed to nonresidents by residents of an economy” (Official site of IMF, 2019).

Developing countries usually seek foreign assistance such as aid, loan, investment, etc. In theory, international capital flow is expected to positively influence to the economy of recipient country which may directly or indirectly benefit through reducing cost of capital, technology transferring, promoting specialization, committing to better economic policies, etc (Bekaert, Campbell, Lundblad, 2017). But empirical research does not confirm straightforward benefits finding no or at best mixed effects reverting to the conclusion that it is not easy to find a strong and robust causal effect from financial globalization to economic growth, especially for developing countries. Some authors study the effect of legal system and institutional environment (Belgibayeva, Plekhanov, 2018). Lucio Sarno and Mark P. Taylor distinguishes four ways the broad categories of flows in the capital account: equity flows (EF), bond flows (BF), official flows (OF), commercial bank credit (BC), and foreign direct investment (FDI). They found “relatively low permanent components in EF, BF and OF, while commercial BC flows appear to contain quite large permanent components and FDI flows are almost entirely permanent” (Sarno, Taylor, 2016).

As per the glossary of IMF, Foreign Direct Investment (FDI) is defined as “the acquisition of at least ten percent of the ordinary shares or voting power in a public or private enterprise by nonresident investors. Direct investment involves a lasting interest in the management of an enterprise and includes reinvestment of profits”. FDI appears to bring about a one-for-one increase in domestic investment. Highly efficient investment and a large growth response might be expected in countries with a relatively high physical and human capital stock, efficient financial markets and good legal institutions (Official site of UNCTAD, 2004). Changes in resource flows affected the share of public and publicly guaranteed debt what fell, while that of private debt increased as a consequence of financial and capital account liberalization and led to a shift from syndicated bank lending to foreign direct investment (FDI) as the major source of external financing for developing countries (Tanna, Li, De Vita, 2018 ). Despite the evidence presented in recent studies, other work indicates that developing countries should be cautious about taking too uncritical an attitude toward the benefits of FDI (Hausmann, Fernandez-Arias, 2017).

Hausmann and Fernández-Arias (2000) point to reasons why a high share of FDI in total capital inflows may be a sign of a host country's weakness rather than its strength. One striking feature of FDI flows is that their share in

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total inflows is higher in riskier countries, with risk measured either by countries' credit ratings for sovereign (government) debt or by other indicators of country risk. There is also some evidence that its share is higher in countries where the quality of institutions is lower. One explanation is that FDI is more likely than other forms of capital flows to take place in countries with missing or inefficient markets. In such settings, foreign investors will prefer to operate directly instead of relying on local financial markets, suppliers, or legal arrangements (Official site of UNCTAD, 2009).

Less volatility of FDI comparing to other types investment flows were noted by several authors as well as the fact that FDI flows involve not only financial capital but technological, managerial and intellectual capital (Wie, 2016). The versatile impact to and from FDI in a globalized world can be found in the works of the authors who studied dynamics of gross capital flows across crisis types, correlation between net inflows and outflows of FDI, relationship between FDI and the home performance of firms (Prakash, 2001). The most recent studies assess the impact of FDI to the environment (Broner, Didier, Aitor Erce, Schmukler, 2016).

However, FDI may not necessarily benefit the host country: through FDI, foreign investors gain crucial inside information about the productivity of the firms under their control (Kim, Pertovsky-Nadeau, 2016). This gives them an informational advantage over "uninformed" domestic savers, whose buying of shares in domestic firms does not entail control. Taking advantage of this superior information, foreign direct investors will tend to retain high-productivity firms under their ownership and control and sell low-productivity firms to the uninformed savers. As with other adverse-selection problems of this kind, this process may lead to overinvestment by foreign direct investors. The recent work has also cast the evidence on the stability of FDI in a new light (Dirk, Procher, 2018). Though it is true that the machines are "bolted down" and, hence, difficult to move out of the host country on short notice, financial transactions can sometimes accomplish a reversal of FDI (Ah, Nguyen, 2019). For instance, the foreign subsidiary can borrow against its collateral domestically and then lend the money back to the parent company (Zhenghui, Zimei Huang, 2019). Likewise, because a significant portion of FDI is intercompany debt, the parent company can quickly recall it. Currency crisis, excessive leverage, weak institutional environment were mentioned by these researchers as reasons for caution (Demena, 2019).

Comparing the debt to GDP, as the GDP is an income for the period while the debt is the position at the specific date, is not sufficient to assess the financial position of any country while excess GDP debt is the indicator to be subject to further detailed analysis in order to understand the economic and financial situation of the country.

Evaluation of effects is usually carried out to understand the causes brought to the effects and identify the factors driving the effect. The result of evaluation can form a basis for changes in regulation and creating tools for government intervention what might cause effects in other areas of national economy. We looked at the issue from the point of short-run and long-term: do we mean one-year saying short-run or three years what is, for example, a "budget period" in Kazakhstan what the inputs and outputs form public expenditures are planned for. Then long-term definition depends on short-run period length, from one side, and the "long-term" plans and/or strategies for the next 5-10 years. Empirical study may be performed for the long period to assess the general effect of subjects under investigation and more accurate results may be achieved with detailed appropriately structured data.

Considering a number of classifications of the debt – "government debt", "public debt", "sovereign debt", "external debt" – we were interested in "external debt" meaning both public and private sectors borrowings where the lender is a non-resident. The external debt matter is one of frequently discussed questions in the countries with a rapid development what could cause an excessive debt burden from the point of a society.

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The next point what we focused on is the nature of the item to be investigated in order to correctly determine the relationship in imbalance issues. The debt is the “balance sheet” item and, consequently, accounted in the country’s accounts as liabilities. The debt may be either short-term or long-term. Other effects from the debt is expenses being an “income statement” item and in- or out-flows being a “cash-flow” or “capital-flow” item. If the majority of total debt is external, i.e. related to non-residents, it might become the country dependent on the economic and financial position of another country and/or countries.

FDI, by its definition, is another “balance sheet” item being accounted as an asset and depending on its size (“10%”, “49%” or even “100%”) and on scale of activity its effect might be very significant to the industry and/or even to the national economy. Effect from FDI to the economy is production of goods/services being a part of GDP. Foreign investors may finance the activity by means of investments into shares of the company or by the debt instrument where the borrower is FDI with any counterpart. If the counterpart is a non-resident it brings to “outflows” of cash and might have an effect to financial policy of the country. Discussions on FDI is more meaningful if to focus on “gross” and “net” (or, “inflows” and “outflows”). But the flows may be related to both FDI to the country and FDI from the country.

Our study is about the economy sectors’ share in the external debt of a country with comparing the external debt with FDI flows empirically testing the FDI flows to the country and its relationship to the country’s external debt.

### 3. Data and methodology

Preliminary analysis of “Data from database: Quarterly External Debt Statistics SDDS” of 74 countries as of the end “2018Q4” last updated 07/31/2019 (Table 1 - Gross External Debt Position by Sector (USD millions) reveals Luxemburg at the top of the list of ExternalDebt/GDP (%) list with the debt almost 60 times higher than its GDP (see Annex 1). West Bank and Gaza is in the bottom of the list with 9.7% ExternalDebt/GDP ratio.

**Table 1.** Gross External Debt Position by Sector

External Debt position	General Government	Central Bank (CB)	Deposit-Taking Corp., exc. CB	Other Sectors	DI: Intercom Lending	total
mIn USD	17 535 699	4 421 087	25 176 987	23 416 413	12 006 267	82 556 453
% of total External Debt	21,2%	5,4%	30,5%	28,4%	14,5%	100,0%
min	0,2%	0,01%	0,04%	3,0%	1,6%	
max	77,0%	32,6%	66,7%	54,6%	63,6%	

Source: compiled by authors according to Eurostat

As given in the table 1 provide above, “Other Sectors” and “Deposit-taking corporations excluding Central Bank” accounts for about 60% of the total external debt. It should be noted that, “general Government is defined as “All government units and all nonmarket, nonprofit institutions that are controlled and mainly financed by government units comprising the central, state, and local governments; includes social security funds and does not include public corporations or quasicorporations. While the definition of “Other sectors” might be not straightforward, we believe that the external debt of “public corporations or quasicorporations” is accounted under this label. The debt related to FDI is accounted as a part of external debt and due to payment to non-residents.



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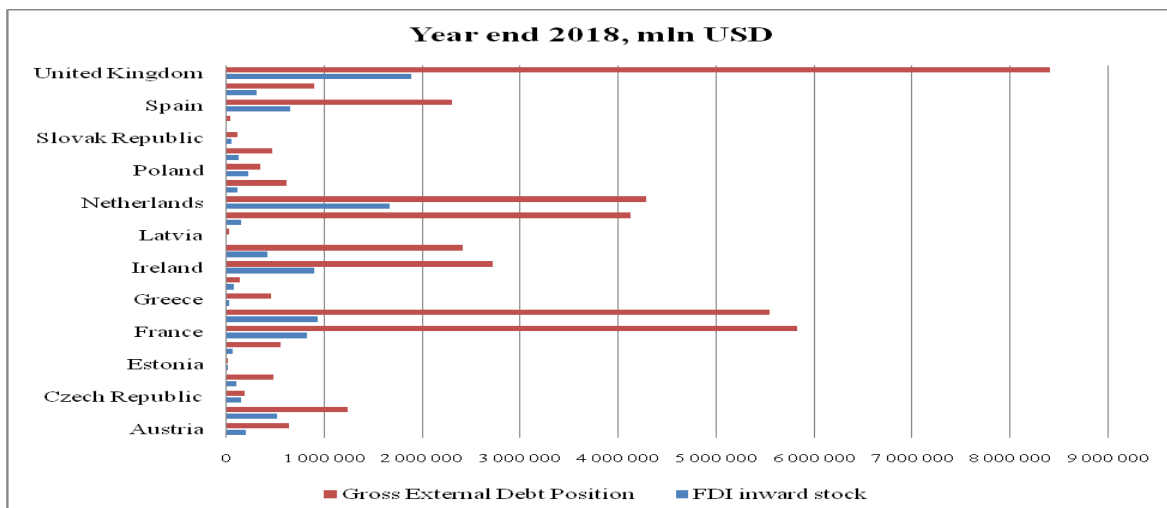
Further analysis of details of each country’s position demonstrates “the leaders” for each section. Ecuador’s government sector is the main borrower of debt from non-residents with 77% of the country’s total external debt. Slovak Republic’s Central Bank leads the list of central banks who relies on the non-residents’ funds. Deposit-taking corporations of Denmark is the most active sector in the country in attracting funds from abroad. Ireland’s “Other sectors” owe to non-residents 54.6% of the country’s total external debt. Finally, Kazakhstan’s external debt is mostly – 63,6% of the country’s total – related to FDI despite of significant difference between gross and net FDI inflows. The details of inflows for the period 2013-2019 is given in the Table 2 in accordance with the country’s official statistics.

**Table 2.** Kazakhstan: Gross and net FDI inflows

<i>mln USD</i>	2013	2014	2015	2016	2017	2018	2019
Gross inflow of direct investment	24 098	23 809	15 368	21 367	20 960	24 276	24 114
Net inflow of direct investment	10 321	8 489	4 057	8 511	4 669	3 817	3 118
difference (Gross-Net), calculated	13 777	15 320	11 311	12 855	16 291	20 459	20 996

Source: compiled by authors

Comparative analysis of two indicators – External Debt stock and FDI stock – was conducted in order to understand their correlation and graphically presented below. Both indicators are given as per the World Bank data except to Azerbaijan and some Central Asian countries – Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan – external debt stock of which are referred to publicly available unofficial sources due to lack of official disclosure.



**Figure 3a.** Developed economies: FDI and External Debt stocks of selected countries

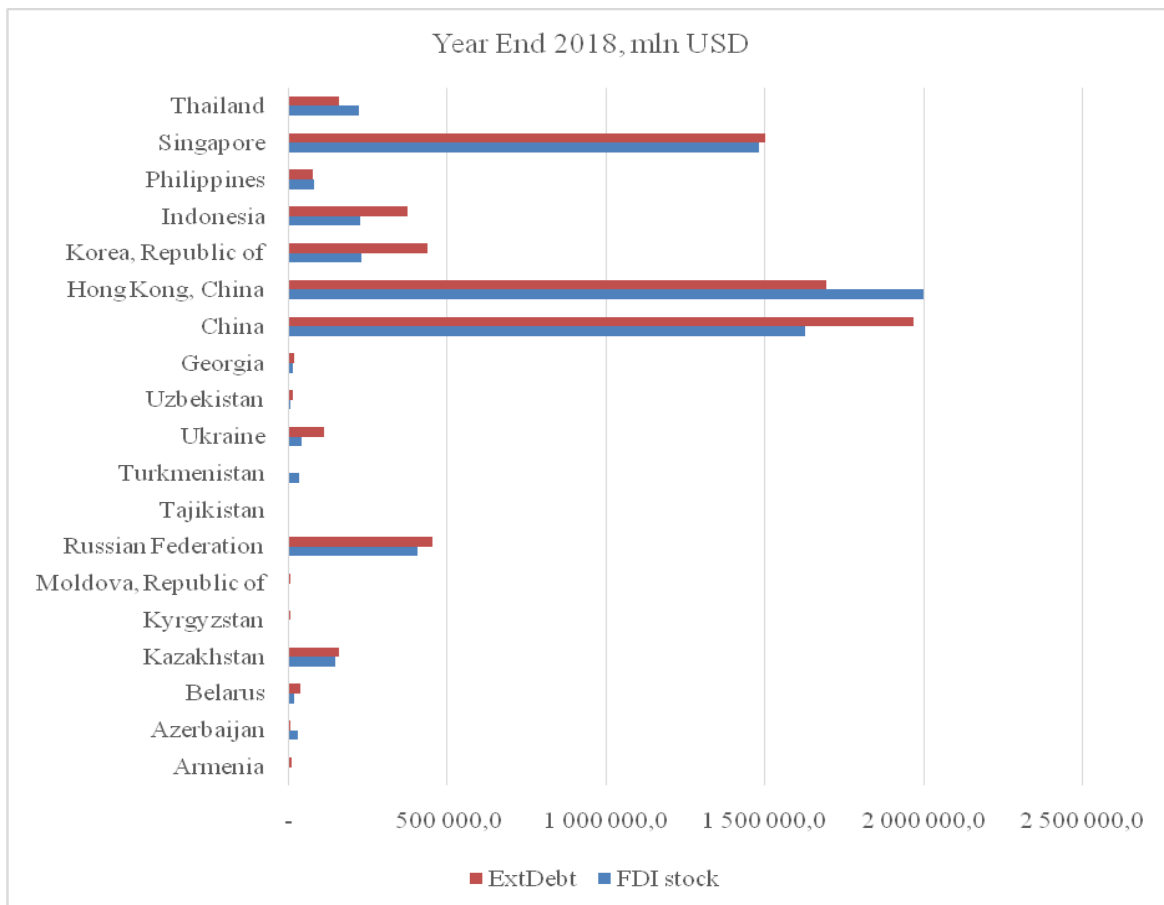
Source: compiled by authors according to Eurostat

World FDI inflows tend to decrease from 2015 to date with a dominant position of developed economies in investments to other countries. In order to investigate a relationship between FDI flows and debt the gross

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amounts would be relevant to use. Due to shortage of time series data on external debt position of developed countries further analysis was not carried out. In case of developed countries, FDI stock is not a major component of external debt.

As of the end of 2018, selected developing economies external debt position is insignificant being in total less than the UK external debt. In the meantime, comparison of two figures – 3a) for developed economies and 3b) for developing countries – reveals an obvious difference in relationship of the FDI and external debt stock. Unlike developed countries, developing countries are interested in attracting foreign investment. A certain relationship between the FDI and external debt stock of developing economies may be there due to attractiveness of these countries for investors who expect higher returns as a reward for higher risks.



**Figure 3b.** Developing economies: FDI inward and Gross External Debt stocks of selected countries  
 Source: compiled by authors according to Eurostat

Time series data on External debt limited to the available data from “External debt stocks (% of GNI), World Development Indicators, Last updated 01.07.2020” is given for comparison purposes assuming the insignificant differences between GDP and GNI of the countries under analysis. Few developing countries like Hong Kong, Korea Republic and Singapore were not analyzed as there is no relevant data. Graphical method of analysis is given in the Figure 4.

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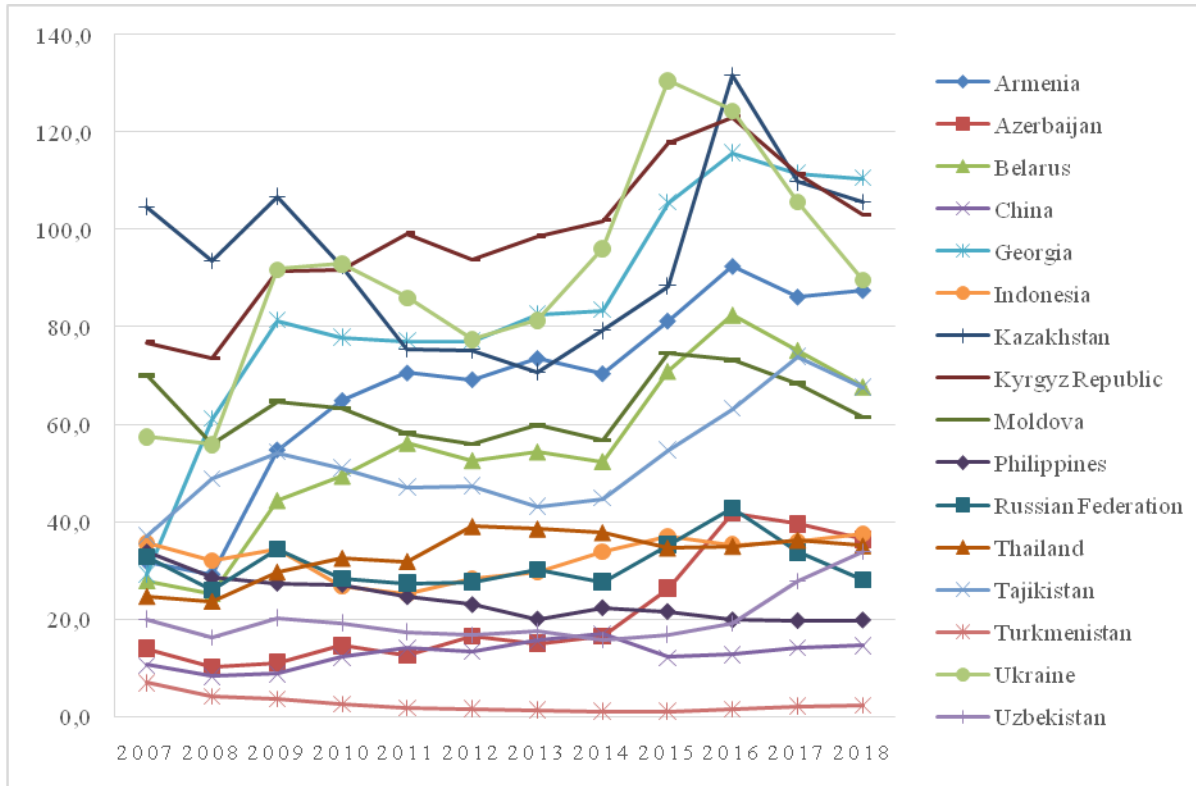


Figure 4. External debt stocks (% of GNI), years 2007-2018  
 Source: compiled by authors according to data of OECD

The figure approximately represents the trend for a given period and countries as the Gross National Income (GNI) of the countries is nearly of their GDP. According to data of the World Bank Group, Annex 1 – Gross External Debt Position by Sector, some countries – Luxembourg, Ireland, Malta – appear at the very top of the list as of the 2018 year end with the highest External Debt-to-GDP ratio.

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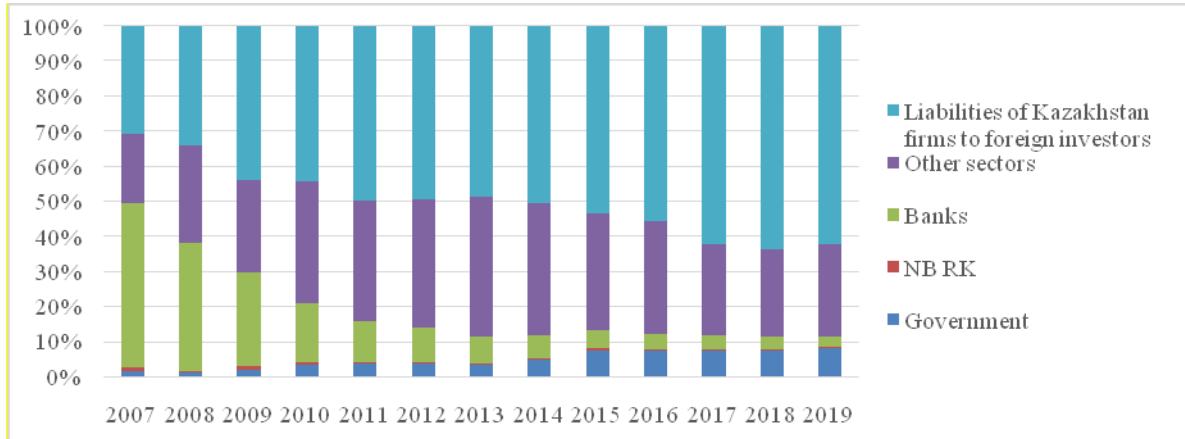


Figure 5. Kazakhstan: External Debt structure by borrowers

Source: compiled by authors according to data of National Bank of the Republic of Kazakhstan <https://nationalbank.kz/en>

Debt means extra, interest, expenses, what could be compared to the return on investments if the debt is due to investment policy. The country’s capacity to repay a debt may depend on a total – public and private – (external) debt burden. If the private external debt is significant and, consequently, the businesses profit goes down due to high interest expenses the government may decide on intervention. This fact is especially important in the countries like Kazakhstan where there are big government business enterprises. To the date the country’s external debt to GDP is 93% about 1/3 of which is the external debt of, mainly, state-owned enterprises while more than 60% is “liabilities of local firms to foreign investors and related (foreign) parties”, i.e. due to FDI as noted above.

According to Figure 5, graphical method of external debt analysis of the Republic of Kazakhstan demonstrates some risks mentioned above with regard to FDI being increased from 31,0% in 2007 to 62,1% in 2019 of the total external debt.

#### 4. Empirical results

Referring to the fact of leadership of Kazakhstan in FDI sector the external debt and FDI stock regression analysis was the subject of the empirical study with 23 of observations considering the dependence of external debt growth on FDI.

Assuming that FDI flows influence growth of external debt, the dependence may be expressed as  $Y = a+bx$ , where External debt is denoted by ‘y’ and FDI inflows is by ‘x’. The result of the study gives an overall impact of FDI and dependent on other factors influencing external debt.

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Regression Statistics	
Multiple R	0,946893694
R_Square	0,896607668
Adjusted R_Square	0,891438052
Standard Error	20,24014668
Observations	22

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	71051,2014	71051,2014	173,4379	2,58423E-11
Residual	20	8193,2708	409,6635		
Total	21	79244,4721			

	Coefficients	Standard error	t-stat	P-value	Lower 95%	Upper 95%
Y-Intercept	22,20	6,4991	3,4160	0,0027	8,6442	35,7580
Variable X 1	0,54	0,0407	13,1696	0,0000	0,4506	0,6202

Referring to the coefficient of determination R\_Square = 0.897 the external debt change may be explained by the amount of FDI inflows while it depend on other factors as well.

The result of further correlation analysis is graphically presented in Figure 6 with the regression equation derived as  $y = 22,2 + 0,54x$

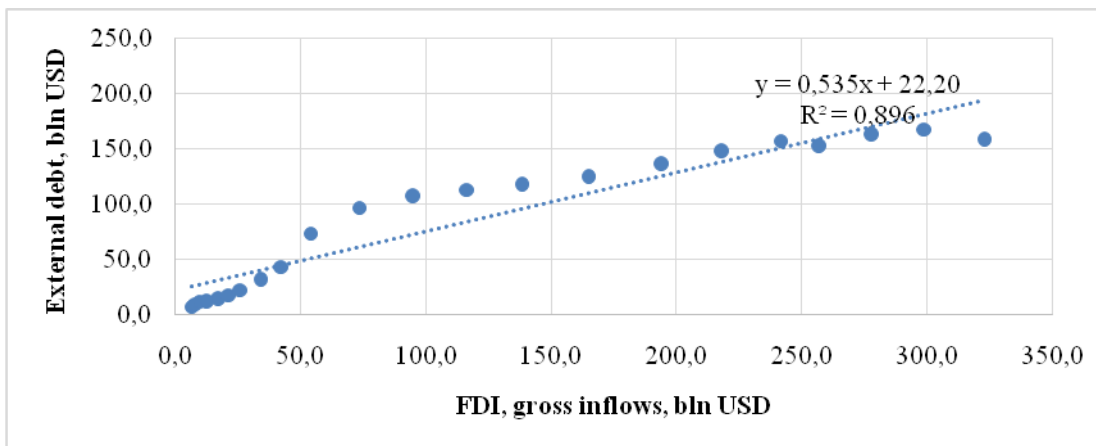


Figure 6. Correlation-regeression analysis of FDI and External Debt  
Source: compiled by authors

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As FDI net inflows is less relevant to Debt we decide to use FDI gross inflows. Indeed, the difference between gross and net FDI inflows is considerable (see Table 2 above) emphasizing the nature of the FDI flow rather than the FDI stock/asset.

We conducted some further investigation into the FDI details as the gross FDI comprises both equity and loan components. The matter is important for evaluation of the FDI effect to the GDP growth through the investments into main capital. Results of the investigation will be presented in coming papers after thorough analysis of appropriate data and relevant information.

## **5. Conclusion**

External debt burden is subject to further analysis depending on the borrower and lender as well as maturity and other terms. For the thorough analysis of the external debt impact to economy the countries' data should be carefully selected with the clear borders of the public and private sectors as well as with the internal and external components of the debt. Then Debt as "flow of money" not in any way belonging to capital or any other contribution could be compared to "capital flow", i.e. investments for assessment of its impact to economy.

Foreign direct investment may contribute to growth if it is an economic investment. If the potential risks – reversal through financial transactions; adverse selection and fire sales; excessive leverage; loss of domestic competition – are managed well then "flow" is transformed into "asset", and the real contribution to economy of "asset" may be assessed depending on the investment return. The assessment may be carried out on the basis of investment by investment analysis considering both economic and social benefits.

Further research in this regard may concern the investments into main capital. An increasing debt may dampen growth over the long term as debt holders may demand larger interest payments as a compensation for an increasing risk that they won't be repaid. Therefore the issue of investment into main capital is vital in public spending as well as in foreign investor's activity. Economically beneficial investments made with care on social and environmental aspects of an activity may bring to sustainable growth thereby justifying the efforts of government and/or investors. Adding value to the business should be on focus in foreign investment analysis. Foreign investors who try to dispose of unprofitable portions of the business or use the company's collateral to get low-cost loans will not add economic value. Economic value added may be assessed by study of reinvestment policy, when earnings in host country work for expansion instead of lending the funds back to the parent company.

One of important matters for further investigation is well-defined border between private and quasi corporations what certainly affects the public debt position. The matter is whether the debt of quasicorporation should be treated as public. As the assets of corporations with a full or controlling ownership of government are public, the liabilities could be treated public as well.

Policy recommendations for developing countries should focus on improving the investment climate for all kinds of capital, domestic as well as foreign. Referring to the analysis provided above we conclude that the majority of developing and emerging economies are dependent on FDI what may directly impact the external debt of the country. The external debt indicator matters to any economy, to be it public or private, due to fiscal and monetary impacts.

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## References

- Ah, T., Nguyen, H. 2019. The Impact of Foreign Direct Investment on Environment Degradation: Evidence from Emerging Markets in Asia. *Int J Environ Res Public Health*, 16(9), 1636-1649. <https://doi.org/10.3390/ijerph16091636>
- Akar, S. 2019. Testing the fiscal fatigue phenomenon in Turkey using a long-run non-linear fiscal reaction function approach, *Department of Public Finance, FEAS. Qualitative Finance and Economics*, 3(4), 645-660. <https://doi.org/10.3934/QFE.2019.4.645>
- Ari, I. 2018. Sustainable Financing for Sustainable Development: Understanding the Interrelations between Public Investment and Sovereign Debt Division of Sustainable Development. *Sustainability*, 10(39), 225-236. <https://doi.org/10.3390/su10113901>
- Aviral, K. 2016. The Behaviour of US and UK Public Debt: Further Evidence Based on Time Varying Parameters. *Journal Transition Studies Review*, 1(23), 778-785. <https://doi.org/10.14665/1614-4007-23-1-002>
- Bayar, Y. 2016. Effects of Sovereign Credit Ratings on Foreign Direct Investment Inflows: Evidence from Turkey. *Journal of Applied Finance & Banking*, 4(2), 91-109.
- Bekaert, G., Campbell, R., Lundblad, C. 2017. Does financial liberalization spur growth. *Journal of Financial Economics*, 77(34), 3-55. <https://doi.org/10.1016/j.jfineco.2004.05.007>
- Belgibayeva, A., Plekhanov, A. 2018. Does corruption matter for sources of foreign direct investment, *European Bank for Reconstruction and Development*, 12(25), 616-627. <https://doi.org/10.1007/s10290-019-00354-1>
- Bengoa, M., Sanchez-Robles, B. 2017. Foreign direct investment, economic freedom and growth: new evidence from Latin America, *European Journal of Political Economy*, 19(23), 529-545. [https://doi.org/10.1016/S0176-2680\(03\)00011-9](https://doi.org/10.1016/S0176-2680(03)00011-9)
- Beqiraj, E. 2018. Public debt sustainability: An empirical study on OECD countries, *Journal of Macroeconomics*, Elsevier, 10(16), 852-864. <https://doi.org/10.1016/j.jmacro.2018.10.002>
- Broner, F., Didier, T., Aitor Erce, F., Schmukler, S. 2016. Gross capital flows: Dynamics and crises. *Journal of Monetary Economics*, 12(60), 113-133. <https://doi.org/10.1016/j.jmoneco.2012.12.004>
- Caner, M., Grennes, Th., Koehler-Geib, F. 2018. Finding the Tipping Point—When Sovereign Debt Turns Bad. *The World Bank Latin America and the Caribbean Region Economic Policy Sector*, 8(12), 510-517.
- Cordella, T., Antonio Ricci, L., Ruiz-Arranz, M. 2015. Debt Overhang or Debt Irrelevance? Revisiting the Debt-Growth Link, *IMF Working Paper*, 313-318. <https://doi.org/10.5089/9781451862423.001>
- Demena, S. 2019. The effect of FDI on environmental emissions: Evidence from a meta-analysis, *Energy Policy*, 10(19), 77-89. <https://doi.org/10.1016/j.enpol.2019.111192>
- Dirk, E., Procher, V. 2018. Home Firm Performance after Foreign Investments and Divestitures. *Ruhr economic papers*, 72(193), 1122-1129.
- Hausmann, R., Fernández-Arias, E. 2017. Foreign Direct Investment: Good Cholesterol? *Inter-American Development Bank Working Paper*. Washington. 210-227 pp.
- Jürgen, G. 2018. *Handbook of Public Finance*. Backhaus University of Erfurt and Richard E. Wagner George Mason University. Kluwer Academic Publishers, 331 p.
- Kim, N., Petrosky-Nadeau, N. 2016. Gross Flows of Foreign Direct Investment, *Ruhr economic papers*, 33(41), 23-29.
- Landesmann, M., Stöllinger, R. 2018. Structural change, trade and global production networks: An 'appropriate industrial policy' for peripheral and catching-up economies, *The Vienna Institute for International Economic Studies*, 15(33), 566-578. <https://doi.org/10.1016/j.strueco.2018.04.001>

Make your research more visible, join the Twitter account of ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES: @Entrepr69728810

Lysandrou, Ph. 2017. Debt Intolerance and the 90% Debt Threshold: Two Impossibility Theorems, London Metropolitan University, 36 p. <https://doi.org/10.1080/03085147.2012.760346>

Mazzanti, M., Mazzarano, M., Pronti, A., Quatrosi, M. 2020. Fiscal policies, public investments and wellbeing: mapping the evolution of the EU. Insights into Regional Development, 2(4), 725-749. [http://doi.org/10.9770/IRD.2020.2.4\(1\)](http://doi.org/10.9770/IRD.2020.2.4(1))

Ndubuisi, P. 2017. Analysis of the Impact of External Debt on Economic Growth in an Emerging Economy: Evidence from Nigeria, 32(45), 819-831. <https://doi.org/10.4314/afrev.v11i4.13>

Official site of IMF. 2019. <https://www.imf.org/external/np/exr/glossary/showTerm.asp#89>

Official site of OECD. 2019. <https://www.oecd.org/>

Official site of the Eurostat. 2019. <https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=teina225&plugin=1>

Official site of UNCTAD. 2004. External finance, debt and foreign direct investment. UNCTAD publication. [https://unctad.org/en/Docs/gdscsir20041c2\\_en.pdf](https://unctad.org/en/Docs/gdscsir20041c2_en.pdf)

Official site of UNCTAD. 2009. Assessing the impact of the current financial and economic crisis on global FDI flows. [https://unctad.org/en/pages/publications/FDI-and-Development-\(Series\).aspx](https://unctad.org/en/pages/publications/FDI-and-Development-(Series).aspx)

Official site of National bank of the Republic of Kazakhstan. 2019. [www.nationalbank.kz](http://www.nationalbank.kz)

Pegkas, P. 2018. The Effect of Government Debt and Other Determinants on Economic Growth: The Greek Experience. *Economies*, 6(10), 321-334. <https://doi.org/10.3390/economies6010010>

Prakash, L. 2001. How Beneficial Is Foreign Direct Investment for Developing Countries? *Journal of Monetary Economics*, 1(9), 21-30.

Rahman, N.H.A., Ismail, S., & Ridzuan, A.R. (2019). How does public debt affect economic growth. A systematic review. *Cogent Business & Management*, 6(1), 1701339 <https://doi.org/10.1080/23311975.2019.1701339>

Sarno, L., Taylor, M. 2016. Hot money, accounting labels and the permanence of capital flows to developing countries: an empirical investigation. UK, 414 p. [https://doi.org/10.1016/S0304-3878\(99\)00016-4](https://doi.org/10.1016/S0304-3878(99)00016-4)

Sasmal, J., Sasmal, R. 2018. Public Debt, Economic Growth and Fiscal Balance: Alternative Measures of Sustainability in the Indian Context, 48(12), 877-894. <https://doi.org/10.1177/0972150918778940>

Stiglitz, J. 2019. *Economics of the Public Sector*. W.W, Norton & company, Inc. 219 p.

Tanna, S., Li, C., De Vita, G. 2018. The role of external debt in the foreign direct investment– growth relationship. *International Journal of Finance & Economics*, 11(32), 231-240. <https://doi.org/10.1002/ijfe.1628>

Wie, Sh. 2016. *International Capital Flows*. Prepared for the New Palgrave Dictionary of Economics, UK, 318 p.

Zhao, Y.L., Liu, F.Y., Liu, C.Y., Usman, M. Dutta, K.D. 2020. Readability of Annual Report and Inefficient Investment: Evidence from Debt Financing. *Transformations in Business & Economics*, Vol. 19, No 1(49), 166-190.

Zhenghui, L., Zimei Huang, D. 2019. Impact of Foreign Direct Investment on Environmental Performance, *Licensee MDPI*, 22(31), 56-67. <https://doi.org/10.3390/su11133538>



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**Annex 1.** The list of countries considered with regard to the Gross External Debt position by Sector

2018 Q4, USD millions	General Government	Central Bank	Deposit-Taking Corp., exc. CB	Other Sectors	DI: Intercom Lending	Total
Argentina	173 584	23 746	5 650	51 217	23 735	277 932
Armenia	5 089	679	2 511	844	1 791	10 914
Australia	238 061	5 902	667 004	368 822	205 480	1 485 269
Austria	245 106	60 852	186 082	98 547	56 743	647 330
Belarus	17 410	795	4 912	13 912	2 016	39 045
Belgium	310 349	80 806	339 670	181 845	332 215	1 244 885
Brazil	174 858	4 113	102 272	145 930	238 605	665 778
Bulgaria	6 355	850	5 270	12 172	14 380	39 027
Canada	344 198	453	813 207	646 189	175 444	1 979 491
Chile	23 046	1 484	28 623	75 268	56 019	184 440
China	232 268	29 581	898 747	592 275	212 343	1 965 214
Colombia	50 617	1 099	17 259	44 774	18 276	132 025
Costa Rica	7 960	1 264	6 262	5 393	7 813	28 692
Croatia	15 635	1 898	4 664	15 256	7 015	44 468
Cyprus	18 449	579	17 792	53 437	27 143	117 400
Czech Republic	31 203	7 892	78 965	35 923	39 885	193 868
Denmark	36 173	2 670	324 899	73 510	49 814	487 066
Ecuador	33 963	403	16	9 701	0	44 083
Egypt, Arab Rep.	48 070	28 269	7 693	12 579	0	96 611
El Salvador	8 664	572	1 896	4 257	1 272	16 661
Estonia	1 722	1 777	6 191	7 718	5 320	22 728
Euroarea	2 541 670	1 161 130	4 810 199	3 914 501	3 664 631	16 092 131
Finland	109 004	15 539	321 710	62 492	58 759	567 504
France	1 443 407	349 564	2 794 819	763 655	477 636	5 829 081
Georgia	5 383	369	4 275	5 411	2 380	17 818
Germany	1 202 136	876 856	1 686 639	776 703	998 218	5 540 552
Greece	341 582	32 905	49 409	28 940	9 606	462 442
Hong Kong SAR, China	3 356	452	1 062 504	364 912	261 093	1 692 317
Hungary	41 866	1 775	19 846	21 949	63 272	148 708
Iceland	2 145	391	5 824	6 404	4 814	19 578
India	104 672	223	153 170	263 009	0	521 074
Indonesia	183 197	3 078	34 451	156 872	0	377 598
Ireland	153 969	20 894	272 661	1 488 120	790 605	2 726 249
Israel	32 800	3 699	12 871	35 763	8 663	93 796
Italy	807 938	567 156	503 249	376 880	164 826	2 420 049
Japan	1 381 604	226 824	1 367 162	974 449	62 551	4 012 590
Jordan	14 124	3 093	10 380	3 716	0	31 313
Kazakhstan	11 555	770	5 752	39 650	101 060	158 787
Korea, Rep.	84 471	27 987	190 562	107 944	29 634	440 598
Latvia	9 849	9 372	6 697	10 284	4 711	40 913
Lithuania	15 235	10 747	4 300	6 380	3 870	40 532
Luxembourg	6 621	140 318	462 682	1 781 750	1 739 681	4 131 052
North Macedonia	3 233	91	651	2 657	2 424	9 056
Malaysia	43 215	3 079	85 381	91 808	..	223 483
Malta	919	787	21 392	25 650	56 306	105 054
Mauritius	1 211	16	8 977	92 527	128 901	231 632
Mexico	197 008	6 402	32 379	212 422	0	448 211
Moldova	1 706	218	386	3 079	1 913	7 302
Morocco	15 589	1 108	1 385	27 558	5 922	51 562
Netherlands	209 281	136 526	1 164 925	1 308 027	1 471 714	4 290 473
New Zealand	35 297	31	98 024	26 567	28 135	188 054
Norway	81 998	3 630	367 746	99 888	72 007	625 269
Peru	16 201	1 012	13 150	36 334	0	66 697
Philippines	33 372	1 319	21 353	19 318	3 597	78 959
Poland	129 904	12 577	55 907	65 980	95 369	359 737
Portugal	157 086	126 876	71 549	59 321	57 785	472 617

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Romania	39 895	1 374	10 345	25 776	36 443	113 833
Russian Federation	43 955	11 880	80 193	177 974	140 678	454 680
Seychelles	406	51	105	1 828	2 684	5 074
Singapore	0	1 038	997 349	291 507	209 221	1 499 115
Slovak Republic	31 730	38 101	11 013	14 376	21 833	117 053
Slovenia	23 731	4 077	3 829	12 469	4 536	48 642
SouthAfrica	66 385	799	30 438	46 549	28 213	172 384
Spain	685 784	558 947	489 785	321 073	251 779	2 307 368
SriLanka	32 009	1 975	7 359	6 562	4 406	52 311
Sweden	69 087	3 361	555 418	115 991	158 142	901 999
Switzerland	30 899	120 697	709 364	484 687	510 132	1 855 779
Thailand	30 922	4 769	36 812	71 118	17 271	160 892
Tunisia	18 405	2 443	5 534	8 677	0	35 059
Turkey	94 544	5 922	164 179	165 690	14 480	444 815
Ukraine	40 128	7 938	5 797	51 433	9 414	114 710
United Kingdom	822 161	36 615	4 693 743	2 137 106	716 690	8 406 315
United States	6 584 373	779 198	2 939 759	7 680 042	1 686 050	19 669 422
Uruguay	16 651	534	3 795	7 525	13 490	41 995
West Bank and Gaza	920	0	417	42	44	1 423
Total:	17 535 699	4 421 087	25 176 987	23 416 413	12 006 267	82 556 453

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