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Papers

G. Dominese	Innovation and Growth in a Dual Technologies Scenario: Civil and Military top Advanced Industries Competition	3
K. Assenova	Easy Birds or Sluggish Bears – Credit Boom or Restriction? Credit cycle – evidence from Central and Eastern Europe	45
D. W. H. Alrabadi; A. M. Alandali	The Effect of Foreign Ownership on Corporate Debt Maturity: Evidence from the Companies Listed in Amman Stock Exchange	55
I. Dokalskaya	Public Performance Evaluation: from the International Debate to the Italian Legal Context	67
T. Debroux	The Abe administration’s policy about the Senkaku Islands and a Role Theory	83
S. Mansoor	Does Aid Work in Conflict? Analysis of Pakistan\	101

Opinion

F. Ayala	Towards a Peaceful Change of the International Order	119
F. Ayala	The Difficult Relationships Between Iran And USA	125

Innovation and Growth in a Dual Technologies Scenario: Civil and Military top Advanced Industries Competition*

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Keywords: Dual Technologies; two Sectors same Ingredients different Shape; Civil-Defence industrial sectors; Growth Theories upgraded and inclusive; International trade impact; European Union “third horse in the race”; Obsolete National visions and innovative approaches in Governance and Technological challenges

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The 2019 edition of the Bourget Air Show¹ and the parallel almost war collision US-Iran in the Strait of Hormuz gave a full pictures of the shifting in civil and military industrial more advanced productions by the top world groups leading the global market of dual technologies for space, airplanes, advanced cars, medical equipment, environment, digital, quantum and hypersonic vehicles. Less parade style to showing but much more telling on the future of the third industrial revolution ongoing. The AI perspective and the 5G² tensions are only titles of the open competition over some of the highest technologies, as this Report from the Euro Parliament pictured³.

Not to mention the defence and military side scenario. The future recently unveiled shows an impressive evolution. The silent uprising of new, advanced, sophisticated technologies pushed for decisive changes in the strategies of the main civil and defence “actors” of the geopolitical and military world scenarios. It impacted as a rude awakening call in Europe but resulted into an increased international competitiveness and growing shares of the global markets in top sectors. In fact, EU⁴ data diffused in May shows the primacy in international trade

¹ <https://www.siae.fr/en/>

² <https://www.reuters.com/article/us-qualcomm-m-a-broadcom-5g/what-is-5g-and-who-are-the-major-players-idUSKCN1GR11N;>

³ [https://www.europarl.europa.eu/RegData/etudes/IDAN/2019/631060/IPOL_IDA\(2019\)631060_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/IDAN/2019/631060/IPOL_IDA(2019)631060_EN.pdf)

⁴ <http://ec.europa.eu/trade/policy/eu-position-in-world-trade/>

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and a close standing in total GDP with US ⁵. The Gross Domestic Product (GDP) in European Union was worth 18748.57 billion in US dollars in 2018. The GDP value of European Union represents 22.24 percent of the world economy. China achievements had been as well outstanding in 2018, with GDP at \$ 13.407 billion and trade to \$2.494 trillion.

I open a quick window on the last quarter 2019 compared to 2018 both for European Union and China versus U.S. The datas for EU are very interesting and not so frequently evoked in official statements of in the media⁶. “The first estimate for Euro area (EA19) exports of goods to the rest of the world in April 2019 was €192.9 billion, an increase of 5.2% compared with April 2018 (€183.4 bn). Imports from the rest of the world stood at €177.2 bn, a rise of 6.6% compared with April 2018 (€166.3 bn).

As a result, the Euro area recorded a €15.7 bn surplus in trade in goods with the rest of the world in April 2019, compared with + €17.1 bn in April 2018. Intra-euro area trade rose to €163.7 bn in April 2019, up by 3% compared with April 2018⁷. Reading the official data diffuse recently by Eurostat, a fully trustable source. EU-China trade moved on in the first part of this year better then in the same part of 2018, with a net margin favorable to China as you can se from the slide.

But what about US *versus* EU and China *versus* US? I asked myself these questions before preparing my draft paper in last July. Let’s see quickly.

- U.S. goods and services trade with the EU totaled nearly \$1.3 trillion in 2018. Exports totaled \$575 billion; Imports totaled \$684 billion. The U.S. goods and services trade deficit with the EU was \$109 billion in 2018⁷. The EU countries, together, would rank 1st as an export market for the United States in 2018. And what about China and US, in the same y.o.y comparative exercise?
- *Customs core data for the first quarter of 2019*. According to customs statistics, the total value of China’s imports and exports in the first quarter of this year was 7.01 trillion yuan, an increase of 3.7% over the same period last year. Among them, exports were 3.77 trillion yuan, up 6.7%; imports were 3.24 trillion yuan, up 0.3%; trade surplus was 529.67 billion yuan, up 75.2%; in dollar terms, in the first quarter, China’s total import and export value was 1.03 trillion US dollars, down 1.5%. Among them, exports were 551.76 billion US dollars, an increase of 1.4%; imports were 475.45 billion US dollars, down 4.8%; trade surplus was 76.31 billion US dollars, an increase of 70.6%.

Again, also in the USA - China flows data the overall values are quite balanced, even if much far from the respectively before forecast ones. On the commercial and services trade the maneuvers due to reciprocal tariffs highering there was no significative impact in the short-medium range.

⁵ <https://tradingeconomics.com/european-union/gdp>

⁶ http://trade.ec.europa.eu/doclib/docs/2013/december/tradoc_151969.pdf ; <http://ec.europa.eu/trade/policy/eu-position-in-world-trade/>

⁷ <https://ustr.gov/countries-regions/china-mongolia-taiwan/peoples-republic-china>

Summarizing US trade with China and European Union⁸

In fact, it's really what we have read in the data of the first semester 2019. But the effective evaluations of the net results for U.S. and China “trade war” will be seen in a longer span of 2020.

But is the reality of U.S, trade balance that is negative and not performing as it should. Let us read the very recent dataset of U.S. versus European Union and China and the deficit that appear so evident and not faced with appropriate policies in the last twenty years. In fact, a sound strategy on competitiveness, innovative products and dual-technology, environment, value chains in wide sectors of advanced industrial production outcomes would give in the medium term much better result than any “trade barrier, dispute or clashes on tariffs”.

2019 : U.S. trade in goods with China

Month	Exports	Imports	Balance
January 2019	7,134.3	41,603.8	-34,469.5
February 2019	8,433.6	33,194.4	-24,760.8
March 2019	10,426.5	31,175.7	-20,749.1
April 2019	7,896.3	34,798.9	-26,902.6
May 2019	9,074.5	39,269.1	-30,194.6
June 2019	9,034.7	39,002.3	-29,967.6
TOTAL 2019	52,000.0	219,044.3	-167,044.3

NOTE: All figures are in millions of U.S. dollars on a nominal basis, not seasonally adjusted unless otherwise specified. Details may not equal totals due to rounding. Table reflects only those months for which there was trade

2018 : U.S. trade in goods with China

Month	Exports	Imports	Balance
January 2018	9,902.6	45,765.6	-35,863.1
February 2018	9,759.9	39,020.6	-29,260.7
March 2018	12,652.1	38,327.6	-25,675.5
April 2018	10,503.8	38,303.9	-27,800.1
May 2018	10,428.2	43,965.7	-33,537.5
June 2018	10,860.1	44,612.1	-33,752.0
July 2018	10,134.6	47,120.6	-36,986.0
August 2018	9,285.9	47,869.2	-38,583.3
September 2018	9,730.0	50,015.0	-40,285.0
October 2018	9,139.9	52,202.3	-43,062.5

⁸ <https://www.census.gov/foreign-trade/balance/c5700.html> ; <https://www.census.gov/foreign-trade/balance/c0003.html>

Month	Exports	Imports	Balance
November 2018	8,606.2	46,500.8	-37,894.6
December 2018	9,144.9	45,972.1	-36,827.2
TOTAL 2018	120,148.1	539,675.6	-419,527.4

NOTE: All figures are in millions of U.S. dollars on a nominal basis, not seasonally adjusted unless otherwise specified. Details may not equal totals due to rounding. Table reflects only those months for which there was trade.

2019 : U.S. trade in goods with European Union

Month	Exports	Imports	Balance
January 2019	27,836.0	39,490.6	-11,654.6
February 2019	28,523.3	37,678.4	-9,155.2
March 2019	30,589.3	44,765.4	-14,176.2
April 2019	27,280.7	44,968.8	-17,688.1
May 2019	28,352.1	45,518.3	-17,166.2
June 2019	27,419.5	41,431.7	-14,012.2
TOTAL 2019	170,000.9	253,853.3	-83,852.5

NOTE: All figures are in millions of U.S. dollars on a nominal basis, not seasonally adjusted unless otherwise specified. Details may not equal totals due to rounding. Table reflects only those months for which there was trade.

2018 : U.S. trade in goods with European Union

Month	Exports	Imports	Balance
January 2018	23,377.4	36,867.7	-13,490.3
February 2018	24,911.6	36,939.2	-12,027.6
March 2018	30,013.1	41,827.7	-11,814.6
April 2018	26,744.1	41,437.6	-14,693.5
May 2018	27,970.4	41,066.3	-13,095.9
June 2018	28,123.2	40,037.6	-11,914.4
July 2018	23,861.2	41,528.7	-17,667.5
August 2018	25,604.5	41,245.7	-15,641.2
September 2018	27,017.6	37,680.0	-10,662.3
October 2018	28,042.1	45,392.0	-17,349.9
November 2018	26,877.7	42,042.9	-15,165.2
December 2018	25,833.4	40,971.3	-15,137.9
TOTAL 2018	318,376.3	487,036.7	-168,660.4

NOTE: All figures are in millions of U.S. dollars on a nominal basis, not seasonally adjusted unless otherwise specified. Details may not equal totals due to rounding. Table reflects only those months

for which there was trade.

These datasets are very significant and comment in a remarkable way the scenario in which the dispute on foreign trade between U.S. and China from one side and with European Union on the other side is moving and has great relevance on competitiveness and future developments. For sure any “trade war” might be resolving these unbalances so clearly shown by the data diffused by from U.S. census.gov but only wider global trade policies and negotiations would drive the world into the safe harbour of governance instead of disputes.

We go back to the paper. We are analyzing a process full of implications for advanced Economic, Financial and Industrial studies and researching as well in International Relations and Political Governance theories and practices, while investment in the defense sectors and for the forthcoming “dual” technologies, already available on an industrial scale, will modify on global scale the perspective real balance of power.

From a stage to the next, future scenario was unveiled showing an impressive evolution. The silent uprising of new, advanced, sophisticated technologies pushed for decisive changes in the strategies of the main civil and defence “actors” of the geopolitical and military world scenarios. It impacted as a rude awakening call in Europe but resulted into an increased international competitiveness and growing shares of the global markets in top sectors.

A process full of implications for Economic, Financial and Industrial studies and researching as well in International Relations and Political Governance theories and practices, as investments in the defense sectors and for the forthcoming “dual” technologies, already available on an industrial scale, start to be available on an industrial scale, then modifying on global scale the perspective real balance of power.

I have found very much innovative the approach recently presented by Accenture - one of the top main corporate advisory company worldwide in governance, strategy, consulting, digital, technology and operations, solutions for low-carbon economy and lessening the effects of climate change – in the very telling Report: “Harness the engine of Innovation”⁹. I will then better focus on the civil-defense multisector that the focus of this paper presentation at the Singapore Economic Review Conference 2019¹⁰.

The Accenture preface on its aims and scope, by the way, is fitting well to our considerations on value chains here in a protagonist Country in evolutionary aspects in industrial civil and defence advancements. *“In today’s tumultuous times, where aerospace and defense companies are contending with myriad challenges - from insurgent competitors and breakneck technological change to geopolitical instability - being relevant is essential. That’s why many in the industry are working furiously to come up with new and innovative ways to serve the needs of their customers, suppliers, partners and workforce at those high-value touch points or “moments that matter.” In this way, they are becoming more like living businesses, building and sustaining*

⁹ Accenture, Harness the Engine of Innovation, Report 2019; <https://www.accenture.com/us-en/insights/high-tech/tech-vision-aerospace-defense>

¹⁰ http://www.serconf.org/2019/about_ser.html

symbiotic ties with their stakeholders as if those relationships were with dear friends. With every business embracing the importance of digital transformation, companies need to look toward their next opportunity for differentiation momentary markets.

Internally, this means preparing the organization to be a truly agile company with the capabilities to identify opportunities and deliver exactly what customers want. In other words, they're striving to become more like living businesses to build and sustain symbiotic ties with every stakeholder on another level, living businesses enable responsive innovation, allowing companies to get ahead of the curve in markets by creating a culture and infrastructure that continuously embrace new ideas, behaviors and technologies. Lower-cost space launches from Blue Origin and SpaceX are great examples of responsive innovation. Both enable the acceleration of new communications and earth observation services at revolutionary price points and at an unprecedented pace in their ecosystem. Internally, this means preparing the organization to be a truly agile company with the capabilities to identify opportunities and deliver exactly what customers want. In other words, they're striving to become more like living businesses to build and sustain symbiotic ties with every stakeholder on another level, living businesses enable responsive innovation, allowing companies to get ahead of the curve in markets by creating a culture and infrastructure that continuously embrace new ideas, behaviors and technologies.

Lower-cost space launches from Blue Origin and SpaceX are great examples of responsive innovation. Both enable the acceleration of new communications and earth observation services at revolutionary price points and at an unprecedented pace in their ecosystem. That granularity of understanding will allow aerospace and defense companies to meet stakeholders in their moment of need in a post-digital world to in fact become a different business to every single customer. It is all about choosing the right moments. How will your company choose them? By conveying exactly the right message or offer in exactly the right context. And delivering truly intelligent experiences that shape offerings and adapt in real time to the needs and preferences of customers, partners, suppliers and employees.

It's about the moments that matter, whether that's using Big Data to predict when an aircraft will need maintenance, or deploying augmented-reality to provide over-the shoulder coaching to field technicians or mechanics on the other side of the world. To create intelligent experiences and responsive innovation, companies need to become agile, shifting to a more fluid, nimble and open relationship model that enables dynamism across the organization, its partners and customers.

Ultimately, a company's infrastructure will be primed to embrace new ideas and technologies and anticipate and respond to changing customer and market opportunities. Consider the example of Airbus Aerial, which fuses a space-based, earth observation satellite fleet with unmanned aircraft to create timely and actionable data for its customers, such as disaster response or being able to perform runway maintenance under extremely tight timeframes”.

And more hints on business models: “The aftermarket continues to see strong interest by the OEMs and prime contractors to take a bigger piece of the \$175 billion global commercial and military MRO market. Lagging aircraft retirements and additional shop visits for older aircraft will provide more opportunity for cost-competitive maintenance providers. Business models such as Boeing's US trainer aircraft award

relies heavily on in-service sustainment sales to offset low production prices. Behind all these developments lie the disruptive innovation and new business models reshaping aerospace and defense's future. Across the board, aerospace and defense businesses are investing in digital to drive innovation. They are deploying innovation labs or digital accelerators. In fact, according to our research, 70% of aerospace and defense executives agree social, mobile, analytics and cloud (SMAC) have moved beyond adoption silos to become part of the core technology foundation for their organizations. Aerospace and defense companies are broadening the diversity and combination of advanced technologies that they are explored."(End Accenture quotation. Annex with tables in last pages of the paper)

Glossary¹¹

DLT – Distributed Ledger Technologies

The progress of mankind is marked by the rise of new technologies and the human ingenuity they unlock. In distributed ledger technology, we may be witnessing one of those potential explosions of creative potential that catalyse exceptional levels of innovation. The technology could prove to have the capacity to deliver a new kind of trust to a wide range of services. As we have seen open data revolutionise the citizen's relationship with the state, so may the visibility in these technologies reform our financial markets, supply chains, consumer and business-to-business services and publicly-held register.

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/492972/gs-16-1-distributed-ledger-technology.pdf

Ai – Artificial Intelligence

Artificial intelligence (AI) is an area of computer science that emphasizes the creation of intelligent machines that work and react like humans. Some of the activities computers with artificial intelligence are designed to including: Speech recognition; Learning; Planning, Problem solving

<https://www.techopedia.com/definition/190/artificial-intelligence-ai>

XR - Extended reality

Extended reality (XR) is a term referring to all real-and-virtual combined environments and human-machine interactions generated by computer technology and wearables. It includes representative forms such as augmented reality (AR), augmented virtuality (AV) and virtual reality (VR).

Quantum Revolution

The integration of quantum technologies currently represents one of the most anticipated advances for armed forces, yet their precise impact remains difficult to predict. Although economical applications and widespread use are still years away, there is little doubt that they will have disruptive effect when they are employed at

¹¹ Transition Studies Research and Network

scale. In May 2018, the head of quantum computing at technology firm Intel suggested that ‘if 10 years from now we have a quantum computer with a few thousand qubits, that would certainly change the world in the same way the first microprocessor did’. (A qubit, or quantum bit, is the basic unit of information in a quantum computer, analogous to a bit in a standard computer.) But while quantum technology is expected to eventually have far-reaching effects for military forces, intelligence services and law-enforcement agencies, it is unclear how far it will alter the traditional balance of power among states, or between states and non-state actors.

<https://www.iiss.org/publications/the-military-balance/the-military-balance-2019/quantum-computing-and-defence>

Dual-technologies main categories

And we also need to clarify which are roughly the dual-technologies main categories and sectors. This horizon defines already the appropriate concept of an already advanced fourth-generation industrial revolution.

The patent approach looks at whether or not a patent is high-tech and also defines biotechnology patents. The groups are put together on the basis of the International Patent Classification (IPC)¹², 8th edition, as are biotechnology patents. Subsequent technical fields are defined as high-technology IPC groups and I integrated with some other others:

- aviation
- communication technology
- computer and automated business equipment
- lasers
- micro-organism and genetic engineering
- semiconductors
- cars engines and innovative transportation tech
- turbines and engines
- space vehicles
- energy production and alternatives
- medical high-tech applications

Then we move to the crucial issue: Emerging technology dominance: what China’s pursuit of advanced dual-use technologies means for the future of Europe’s economy and defence innovation¹³. And an interesting following question and answers reading: “Risky business? The EU, China and dual-use technology”¹⁴ and SIPRI “Dual-use and arms trade control”¹⁵. All that said, being the focus of this Conference on “Industrialization and the Expansion of Global Value Chains” with reference to China, I introduce immediately three main question marks in this paper.

¹² <https://www.wipo.int/classifications/ipc/en/>

¹³ https://www.merics.org/sites/default/files/2018-12/181218_Emerging_technology_dominance_MERICS_IISS.pdf

¹⁴ <https://www.iiss.europa.eu/sites/default/files/EUISSFiles/op80.pdf>

¹⁵ <https://www.sipri.org/research/armament-and-disarmament/dual-use-and-arms-trade-control>

Three Main Question Marks

- 1) Are the global value chains mainly belonging and managed simply by national shaping and political governance and/or dominance, or are they more and more resulting into transnational, sophisticated nets of specialized enterprises in closely partnership?
- 2) Are they competitive in dual high-tech sectors then mainly driven by the international markets, so irresistibly pushing toward a stage of industrial production and sectoral integration where is already more crucial and vital than the conditionality of the producing countries?
- 3) Looking to the “market” of defence dual-technologies, is the presence of a wide international trade of these technologies more and more guiding their own strategies and markets, in competition but in strategic partnerships even in the defence sector and much less conditionate national political or almost oligopolistic attitudes as in the past?

We have not to find answers straight now, but we need to keep permanently in mind these questions marks for the future, the near future, the daily management of production. I have myself only credible elements to forecast this scenario but no final answers today, as the fog at this stage is still dense and the experts are divided and silent on these issues. Let's start being more farsighted considering China defence sectors or Russia capabilities or the new entry of strategic players countries in the five continents.

Rumors of high tensions and instrumental media coverage of this “technological clash”, with a kind of tariffs trade war ignited by US and China in long lists of products - spreading unbalanced repercussions to their domestic economies and international markets as well - where you can recognize also the ones affecting all the high industrialized countries highering around the world highering dangerous stages a so called “trade war”, where antagonisms might result into an out of control situation. For sure, the good mood of G 20 Osaka conclusions have reduced temporarily the temperature but what's next? Even U.S. and Europe trade relations are in a light cloudy forecast as circulating voices of measures of U.S. related to Airbus, the leading civil aviation European industrial Group - by the way partner of top UK aerospace industries for avionics and of Rolls Royce for jet turbines - just because with A-320, A321, A350 the Toulouse based Group accumulated a wide market preference, trust and confidence among almost all international air carriers. As I will mention more than once, my experience and knowledge showed by and large how any tariffs leverage is effective among main, advanced economic powers in the medium-long run and EU is by and large the first trade dynamic ranking today. Europe in fact is the world's largest exporter of manufactured goods and services, and is itself the biggest export market for around 80 countries. Together, the European Union's members account (data released by Eurostat on May 2019) for almost 17% of world imports and exports¹⁶.

As straightforward researcher, I perceive the *conundrum* these data are posing but

¹⁶ http://trade.ec.europa.eu/doclib/docs/2013/december/tradoc_151969.pdf ; <http://ec.europa.eu/trade/policy/eu-position-in-world-trade/>

at the same time the instrumentalization growing in the three main protagonist sides of this clash, U.S. China and European Union¹⁷. With Europe moving to a “third player mode” into the substance revealed by Huawei case and surrounding implications fostering the EU capabilities to enter in a positive competition way with the major players. We are now in fact are this turning point. And East Asian countries focusing on as well on the stability and governance in the region, with Japan, South Korea, Taiwan, Philippines, Viet Nam, Singapore, Indonesia and Malaysia highering their regional defence spending and capabilities.

Here is the divide we have to keep into care, as we assisted recently to trade tariffs disputes for segments of dual technological productions, specifically touching the core of AI and computing data and information management. We are learning more and more that any monopolistic policy will work at global scale, as the competitors might be more than several and nobody have to presume to be ahead of the others, for the basic principle that in an advance industrial world all technologies can be transformed into supply chain sectors, with a plurality of players and markets.

The answers are in fact tied to the evident growing differential, in these specific sectors, among economic systems, industrial productions organization, market development, civil and defence new generation extraordinary products. The sharp reality we had been assisting in the recent months is summarized by the preeminence of competitive open market drivers - to great extent even in the sectors and segments of the defence groups and industries - in an environment of a limited groups of competitive players, let say of the 70-80 industrial main groups sharing a relevant part of the global offer and market shares.

The openness and competitiveness are factors that can't be stopped easily regarding the so-called open market main economy long lasting players but might be the opportunity even in the specificity of China¹⁸ peculiar system, structures and citizens perceptions, from one side, and of Russia heritage of the full economic collapsing system and still in progress toward a new one not yet fully achieved.

Political governance, in other words, can't be imagined as uniform and shared at the same tuning around the world, as in the superficial aims of a total globalization vision. International trade of technologies, final industrial productions, goods, energy and raw materials is of major, crucial relevance for all the countries, unions and alliances. To rise barriers with tariffs or within international organizations restrictions had often resulted into inconclusive tensions and even open conflicts.

Advanced weaponries transfers are under our eyes, as the ways to skip the classic tools of limitations or embargo in the procurements fields, for both civil and military sectors, show a parallel expertise of producer countries to find alternatives, even under the format of shadow and not visible registered forwarding, through a wide fan of tricks to circumvent sanctions or bans to official export channels, under complex or illegal deals and channels.

What to wait for the future? Difficult to say now. I then come back to my paper and

¹⁷ [http://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633149/EPRS_BRI\(2019\)633149_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633149/EPRS_BRI(2019)633149_EN.pdf)

¹⁸ <https://www.iiss.org/blogs/military-balance/2018/08/china-global-defence-industry-league>

leave these complex and frictional issues to the next future, assuming the classic Latin style “*et posteris iudices*”, meaning in the future, “posterity will judge”.

But one point might become a positive sign: there are growing premises for a “third horse” into the game between US and China clashing in fact around the highest technologies, web evolution, information tech advancing, AI and as we mentioned Quantum and Hypersonic vehicles. Since ever, competition had being resulting as an effective, good treatment of markets contagion, diseases and deviations, specifically when too much sharp duopolistic and protected markets are leading apparently not disturbed, as in fact they should foresight and perceive.

I quote the “Global digital leadership: A two horse races ?” from a document prepared by Kevin Koerner¹⁹ for Deutsche Bank Research. “In the competition for global leadership in technologies like artificial intelligence, most observers see a two-horse race between China and the United States. But what about Europe? Can it ever catch up to the galloping favorites? It won’t be easy. The digital economy in the United States has big advantages: a large domestic market, a risk-taking investment culture, and plenty of innovative companies and world-class universities. US tech giants were first-movers out of the gates, and used the network effects of the platform economy to dominate not only the US, but many other markets worldwide”.

But scenario has changed in the last two decades and competition ramped on quickly. “Among the competitors, China had assumed the major role. I quote from the mentioned researcher paper: “One exception is China. Chinese policies like the “Great Firewall”, which limits foreign internet services, and basic state support for home-grown companies, have reined in US tech giants and given China a booming digital economy of its own. Their companies are now direct competitors with U.S. firms in the fields of artificial intelligence and robotics, as they jockey for market share and talent. Europe, meanwhile, had fallen behind. Despite its top wealth, qualified workforce and excellent research facilities, Europe still lacks its own competitive tech giants. It boasts the world’s second-largest market, but that market is fragmented. New policies that might help the bloc competing globally often falter due to divergent national interests. Venture capital and risk-taking entrepreneurial spirit are still harder to come by in Europe than across the Atlantic”.

“But Europe – conclude Koerner - has recently announced major investment packages and launched strategic initiatives like the AI Alliance, designed to get the continent back in the hunt. The continent has also pioneered new standards for regulation, data protection and competition. Whether this kind of regulation spurs or slows the data economy is yet to be seen. But in an era of data scandals and consumer insecurity, it is conceivable that “made-in-Europe” data protection -conclude the researcher of Deutsche Bank - could become a valuable brand for the third horse in the race”.

(End quotation)

¹⁹ [https://www.dbresearch.com/servlet/reweb2.ReWEB?rwnode=RPS_EN-PROD\\$INTERNAT&rwsite=RPS_EN-PROD&rwobj=ReDisplay.Start.class&document=PROD000000000489430](https://www.dbresearch.com/servlet/reweb2.ReWEB?rwnode=RPS_EN-PROD$INTERNAT&rwsite=RPS_EN-PROD&rwobj=ReDisplay.Start.class&document=PROD000000000489430)

The innovative scenario we stand in front of shows to be applicable *de facto* to European productions and output shares of the global industrial main sectors in almost all the sophisticated areas of production, within the highly competitive endowment of factors from cybernetics, avionics, cars and trucks productions, medical diagnostic technologies, space programs, **nanotechnologies**, life sciences, environmental emergencies, meteorology and oceans monitoring, medicine, health treatments, computing sciences, agriculture ecologic treatments, diffusion of industrial robotized factories, artificial intelligence, battery and hybrid cars and trucks, aerospace, telecommunications, radar and navigation enhanced systems directly induced from military aviation experiences, not to talk of computers and cellphones entered quickly as protagonist actors of the individual life in the five “connected” e-continent. Sorry for the long list that is very telling anyway of the status of the frictions.

A Step Ahead: the New Theories of Growth

New theories of Growth, the so-called *revised* Solow applied models approaches, around 1990 gave a start to the third millennium, anticipating the forthcoming new basic factors deeply changing the past industrial system and introducing crucial key finally measurable variables directly affecting society, production, finance, governance, development and institutions. I feel quite appropriate to propose the original copy of the NBER Cambridge Massachusetts announcement of the master turning point in literature on growth “A Contribution to the Empirics of Economic Growth”, by three authors: David Romer²⁰, Gregory Mankiw and David Weil.

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A CONTRIBUTION TO THE EMPIRICS OF ECONOMIC GROWTH 21

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²⁰ N. Gregory Mankiw, David Romer, David N. Weil; https://eml.berkeley.edu/~dromer/papers/MRW_QJE1992.pdf

²¹ NBER- National Bureau of Economic Research, USA

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A CONTRIBUTION TO THE EMPIRICS OF ECONOMIC GROWTH ABSTRACT

This paper examines whether the Solow growth model is consistent with the international variation in the standard of living. It shows that an augmented Solow model that includes accumulation of human as well as physical capital provides an excellent description of the cross-country data. The model explains about 80 percent of the international variation in income per capita, and the estimated influences of physical-capital accumulation, human-capital accumulation, and population growth confirm the model's predictions. The paper also examines the implications of the Solow model for convergence in standards of living—that is, for whether poor countries tend to grow faster than rich countries. The evidence indicates that, holding population growth and capital accumulation constant, countries converge at about the rate the augmented Solow model predicts.

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Next step. Theories of Growth had in any case a decisive implementation from the Solow milestone with “A Contribution to the Empirics of Economic Growth”, in 1990, by three authors: David Romer, Gregory Mankiw and David Weil. The further developments of theories start in the 2000 to integrate and enlarge the focus - as for instance the one shown in “DBR-Global Growth Centres 2020” - are moving further on these assumptions. What was perceived as an intuition is in fact a reality with the complexity of new factors and variables to be integrated.

A detailed overview on the new perspectives had been offered in 2018 by Daniel

Gross, Director CEPS, Brussels, with “Global Trends to 2035 Economy and Society”²² for the EPRS-European Parliamentary Research Service. In fact, Europe at large is representing the best world case and laboratory for a fair, shared sustainable future not only in dual-technologies enhancing and developments, as this paper is focusing, but in an overall horizon of variables and connected outcomes.

We have to connect these observations with the new brand economic theories of Growth developments, the so-called or *revised* Solow applied models approaches. The colleagues working actually on these “new theories” had already proposed more than eighty revisited or quite different approaches elaborations. Fantasy is now on power and seems to be very fertile.

When the new century 2000 gave a start to the third millennium, anticipating the forthcoming new basic factors deeply changing, also the theoretical approaches upgraded and penetrated into the news production and industrial system achievements, introducing crucial key finally measurable or good proxy variables directly affecting the industrial production, financial and social governance, technology impacts, education, health, long life expectancy, immigration explosion, immaterial values relevance. Specifically, the two complex variables “T” technology and “H” human capital.

In other words, the crucial GDP, the results in PPP per capita incomes, the clusters of many variables more measurable drivers around the world became more and more sophisticated and determinant. Scientific community and prominent scholars’ analyses are adding valuable, solid outcomes in a work still in progress, as we are talking of magmatic aspects of future researches.

Remarkable as before underlined was the contribution by N. Gregory Mankiw, David Romer²³ and David N. Weil with their “A contribution to the Empirics of Economic Growth, NBER Working Paper 3541, December 1990. But researching is a never-ending intellectual mission.

I am proposing now the relevant applied contribution of the Formel-G approach to the theories of Growth as in “Global growth centers 2020 Formel-G”, diffused in 2005 by Deutsche Bank Research, a main financial think tank leading the advanced forecast analyses. Here you find two pages from the DBR new Theories of Growth²⁴ analyses, outcomes and trends map.

Presenting my paper, I gave some quick references to the innovative clusters and drivers emerging from the blossoming of analytical theoretical and applied contributions in scholarly books, advanced researches, journals, faculty presentations and experts, all indispensable reading of the evident transition from the past to the future applied economic thinking.

To move a bit further, I had considered many of the best scientific contributions, researches, and main academic and institutional centers. Let us try to introduce the appropriate factors “K - H - P - A - L” of the 2005 Formel-G by DBR, as I just

²² [http://www.europarl.europa.eu/RegData/etudes/STUD/2018/627126/EPRS_STU\(2018\)627126_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/STUD/2018/627126/EPRS_STU(2018)627126_EN.pdf)

²³ <https://www.nber.org/papers/w3541.pdf>

²⁴ DBR-new Theories of Growth analyses and outcomes

integrally proposed to your attention with the previous pages. These Growth “factors” and variables need to incorporate some further, evolutionary perspectives and strategic peculiarities at present and looking to future 2020-2030. “Dual Technologies Sectors Innovation and Growth: Civil and Military Industries in Europe versus US and China” is the main issue and we need to extend our economic, industrial and civil-defence productions as well as in researches related to high-tech and advanced financial implications. As is now evident, these issues are complex and “in progress” but not for this reason left in the fog and vague assumptions. From one side, assuming that factors H-human capital incorporating knowledge and related outcomes; A-technological as the unpredictable advancements request to be further investigated; and introducing the new aggregated variable P-governance policy, so much determinant for a contemporary competitive, open and value chains organized economic regional and transnational successful industrial system.

We are in front to the most important driver of change, to a magnitude that was perceived but even so unexpected so soon at this stage just twenty years ago, in 2000. History always showed that progress in research brings to different outcomes time passing; and this is the age of the fourth industrial revolution.

We are still on the move, with the impact of this immaterial variables, as the so debated “A” technologies exogenous new factor jumped into the stage. Although theory does not produce a clear conclusion on the “correct” growth model (the “correct” P), it helps to identify a potential fan of growth drivers.

The decision regarding to which additional variables really have a statistically and economically significant link with growth is an open debate and a quantitative advanced researching effort based on econometric analysis, following several schools of thinking. From my own experience, the main researching projects on the specific area of studies are moving on a base of almost one hundred variables-factors-data exanimated and included in the possible P over all composite weight.

B. Theory and methodology

After the first results have been presented and the analytical framework has been outlined, the next two sections explain the fundamentals of modern theoretical and empirical growth analysis. An important element of *Formel-G* will be derived: the econometric equation.

4. Searching for technological progress

Growth forecasts must have a solid theoretical foundation. The basis of most growth analyses is the **neoclassical production function** in which **output Y** is a function of **labour input L**, **capital input K** and the **level of technology A** (Solow residual; usually called "total factor productivity"). Growth decompositions divide actual growth into these three components. However, over the long-term, the sole driver of any growth of per capita output is the progress of technology A. It also is crucial for the long-term increase in the capital stock per capita.¹⁰ Therefore, forecasts of economic growth with the help of simple growth decompositions require more or less arbitrary assumptions on technological progress.¹¹ They do not explain the really interesting variable A but bury it in an assumption. Therefore, simple growth decompositions are not suitable for forecasting.

The often assumed **absolute convergence** of income levels between countries (i.e. poor countries' GDP grows faster than rich countries') also lacks theoretical and empirical support. There is no automatism: higher income levels do not fall from heaven like manna but require hard work.¹² GDP of a country only converges to the country-specific income level that is determined by that country's growth drivers.

Therefore, any useful model of the future has to explain technological progress. This is easier said than done, however. Mankiw/Romer/Weil made a pathbreaking contribution in 1992 by incorporating **human capital H** as a measure for the quality of labour input into the empirical growth analysis. Human capital describes a person's ability to produce output efficiently and to develop new products. This important additional variable helped significantly in explaining historic income differences across countries.

For empirical growth analysis, this was a great step forward but not fully satisfactory yet. Both theoretical and empirical work of the last ten years tried to model the remaining, unexplained share of technological change after human capital is taken into consideration. The objective is to **explain economic growth as fully as possible in the model** by incorporating a further policy variable P (or several variables). Exogenous, unexplainable influences are to be minimised.

The search for P gave rise to a flourishing literature dealing with the role of politics, institutions, knowledge and innovation.¹³ In their overview, Durlauf, Johnson and Temple (2004) identify 42 "growth theories" using a total of 102 variables – which may be combined in different variations.¹⁴ Although theory does not produce a clear conclusion on the "correct" growth model (the "correct" P) it helps us identify potential growth drivers. The decision as to which additional variables really have a statistically and economically significant link with growth will have to be based on econometric analysis.

Theoretical foundation: the production function

Production function in the Solow model:

$$Y_t = K_t^\alpha \cdot (A_t \cdot L_t)^{1-\alpha}$$

Absolute convergence not a given

Production function in the Mankiw/Romer/Weil model:

$$Y_t = K_t^\alpha \cdot H_t^\beta \cdot (\tilde{A}_t \cdot L_t)^{1-\alpha-\beta}$$

Production function in *Formel-G*:

$$Y_t = K_t^\alpha \cdot H_t^\beta \cdot (P_t \cdot \hat{A}_t \cdot L_t)^{1-\alpha-\beta}$$

¹⁰ This is set out very clearly by Barro, Sala-i-Martin (2004), pp. 457 and 460.

¹¹ For example, filter techniques with averages of the past are applied or absolute convergence with other countries is assumed.

¹² Easterly and Levine (2001) even observe a divergence in income levels.

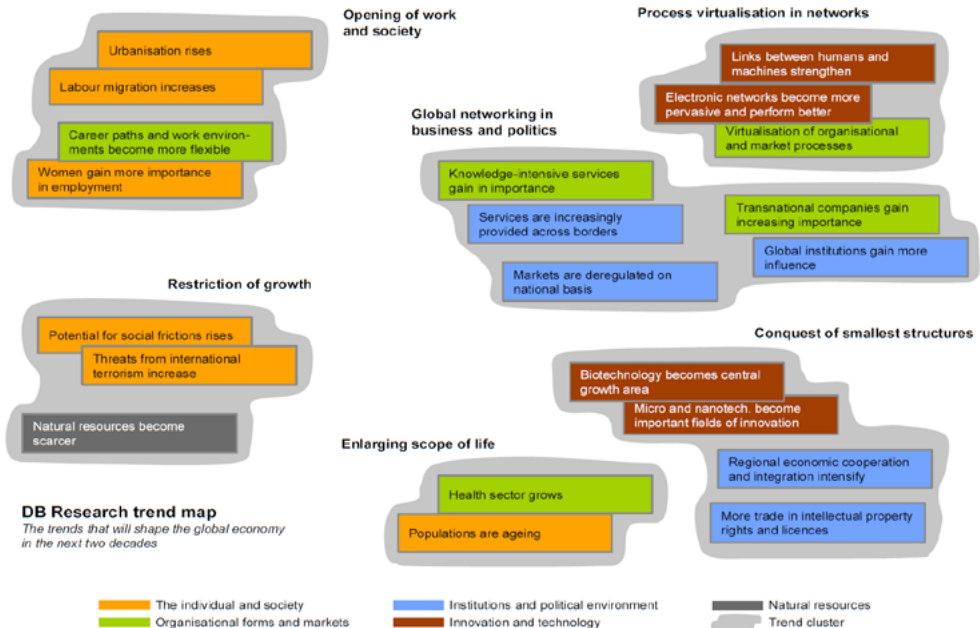
¹³ The World Bank, the IMF, the OECD and the NBER have contributed many new insights with new data sets and a large number of publications.

¹⁴ Temple (1999) also gives an excellent overview.

1. DBR's *Formel-G*



Deutsche Bank Research's trend map



Presenting my paper, I give some quick references to the innovative clusters and drivers emerging from the blossoming of analytical theoretical and applied references in scholarly books, advanced researches, journals, faculty presentations and experts reading of the evident transition from the past and an evolutionary future applied economic thinking. The issues now presented are in fact very much binding the main protagonists of the international relations. And first of all of the policy choices and governance implications that that can't be shadowed or underestimated as these advancements and driver of development, competitiveness, wealth or underdevelopment, raw materials, new discoveries and strategic choices are directly affecting the security options.

In fact, scientific schools of thinking are existing for the really purpose to test and find flaws in the other field of theoretical approach. At the end to create a scientific competition among theories and applied policies, institutions and governance.

One of these scholars is Justin Yifu Lin Lin, a leading Chinese economist who served as chief economist to the World Bank in 2008-2012. So Lin has a deep level of knowledge and the experiences of developing countries and their efforts to achieve sustained growth. He believes that the answer to the question posed above is "yes", and he lays out the central components of such a policy in a framework that he describes

as the “new structural economics”. His analysis is presented in *New Structural Economics: A Framework for Rethinking Development and Policy*²⁵. Lin’s analysis is intended to be relevant for all low- and middle-income countries (e.g. Brazil, Nigeria, or Indonesia); but the primary application was China. So his question comes down to this: what steps does the Chinese state need to take to burst out of the “middle income trap” and bring per capita incomes in the country up to the level of high-income countries in the OECD?

What are the core premises of Lin’s analysis of sustainable economic growth? Two are most basic: the market should govern prices, and the state should make intelligent policies and investments that encourage the “right kind” of innovation in economic activity in the country. Recently he entered the touchy issue of the “Trade War” U.S. vs. China. “If the United States maintains its trade war with China it will miss out on the benefits of the Asian nation’s future growth”²⁶. Unlike other emerging economies like Russia, India, Brazil and Turkey, China has good investment opportunities to realize its growth potential, said Justin Lin Yifu, who is also a senior professor at Peking University. “And if the U.S. misses out on those opportunities, they will be snapped up by other players, like Japan, South Korea and the European Union”, he said.

The main military actors nowadays as European Union, China and Russia - in the frame of their historical national formats, alliances or in the new geopolitical scenario of bilateral and multilateral developments continuously in progress - had pushed into a growing competition both the long-running military and transnational political institutions, such as NATO or other multilateral forms of strategic and operational agreements, and even more by individual player countries growing roles, as the case I mention again of France, Germany, UK, Italy, Spain Sweden and Switzerland as well as India, Israel, Japan, South Korea, Taiwan, Malaysia, Brunei, Philippines as well as Singapore, Viet Nam, Thailand, Pakistan, Saudi Arabia, Turkey, Egypt even if we have not to neglect main players as Brazil, Chile, Mexico, Australia and New Zealand just to mention and showing them in evidence, with an open list for future incoming players: rising Central Asians countries, Middle East and of course the Baltic, Central and Eastern European ones that at large will make the difference in the future.

From Conventional to Nuclear then into Future

Enlarging the horizon, even in the frame related to nuclear weapons, had been recently reshaped. Until a possible renegotiation of the INF Treaty (Intermediate range Nuclear Forces, then from 500 to 5,000 kilometers in radius) - after the USA decision to withdraw from this nuclear arms treaty signed in 1987 with Russia and the diffuse perceptions and rumors, in Europe and among the major military powers, that Russia was violating systematically the Treaty - the push for modernization and technologic

²⁵ Justin Yifu Lin, Beijing University, *New Structural Economics A Framework for Rethinking Development* (WB); https://www.bancaditalia.it/pubblicazioni/altri-atti-seminari/2011/paper_lin_economics.pdf

²⁶ <https://www.scmp.com/economy/china-economy/article/2171295/end-trade-war-china-or-miss-out-future-growth-ex-world-bank>

upgrade deterrence restart, as mini nuclear weapons that are on the stage now. Just for to recall this not well debated point, INF was in any case the unique arms control agreement banning a full class of strategic weapons both for Russia and the US, a key acquisition of the post URSS détente.

It must be distinguished of course INF from the CNTB-Comprehensive Nuclear Test Ban Treaty, this last one signed in 1996 but after not ratified by U.S. and other relevant countries as China, Egypt, Israel, Iran and Yemen jst to mention. But an even not perfect INF should be better, in this transition time from mass destructions old technologies - frequently defined properly as “holocaust” both in intellectual and effective humanity tragedy results - to new incoming last generation much more flexible, focused and targeted scenario. Completely new arsenals of high technologies had quickly substituted the previous generations, as mainly shown in the regional wars, terrorism, insurgencies not to talk of movies, tv series, romances and a kind of unforgettable nightmare in the past. In good or worst, in peace or epic war, with a human toll of dozens of millions lives lost and horrible ethnic or religious genocides, dramas for soldiers and civils victims, until peace and reconciliations arriving so late and in contradictory, compromised situation on the field. But nothing so striking as the future is announcing. Almost all the main scientific turning point applications must be driven in fact to be conquest for humanity not for the dissolution of the human beings.

If we looking ahead to perspective ten, twenty years, with the extraordinary potentiality and application scenario of Quantum information computer system, with data and operational information capabilities, at the “light” speed performance of 300.000 kilometers per second, the rise of a new geopolitical world has already start. Even Einstein would be amazed. Not to forget, in recent years, another new development with a strong impact on previous technologies, the mentioned hypersonic vehicles.

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The room had been in this way left open for the development of the PrSM-Precision Strike Missile, in anticipation of the future integration and announced operational deployment of hypersonic jets, missiles, vehicles, devices with the forthcoming quantum value added in terms of universal implications.

But in fact these tensions are destined to be domed in the medium term by the negative impact on GDP and real growth for all the countries leading this confrontation, a part the looming of international tensions and incumbent war scenarios. The more qualified economics theories and applied researches had mainly demonstrated as in the past two centuries how these conflictual outcomes of similar policies brought to antagonism and mutual wars, implying horrible human life pay tolls. While the past had not available any weapons of humanity destroying capabilities- then war was

a last but possible option - today and even more tomorrow the looming of terrific conflicts will have a substance and a threatening conditionality.

As it had been has already been announced - or let been understood by the international community and specifically Russia, U.S. and China as well as *de facto* European Union and Asian key countries - the testing of missiles, rockets, jets and vehicles in the atmosphere and stratosphere with speeds up to ten times the sound speed had been successful. The Hypersonic Glide Vehicles, as jets and missiles with speed capacity up to match 10 match and even more - therefore with performances in the range of 10,000/20,000 km/h in atmospheric and stratospheric missions - are radically changing the balance of strength and defence capabilities built and developed until now²⁷. Already the counter move has been already activated²⁸. “DARPA-Defense Advanced Research Projects Agency - I mention with passion as I love to reading history - had been founded by Dwight David Eisenhower President of US and army general and statesman - calls it “counter-hypersonic”. The rest of U.S. would call it a way to stop nuclear warheads coming down at 20 times the speed of sound. DARPA, the Pentagon’s research agency, wants an interceptor that can stop weapons that are hypersonic (travel faster than Mach 5. The agency has begun soliciting proposals for glide breaker, its project to stop boost-glide vehicles that are lofted high into the atmosphere atop a ballistic missile, and then glide down to Earth. The current exemplar is Russia’s Avangard, touted by President Vladimir Putin as unstoppable by anti-missile defenses. But China and the U.S. are also developing boost-glide vehicles. The fan of aspects on defence and security impact in the civil-military industrial sectors and the international players companies and groups sharing great part of international trade are showing how high technologies are progressively integrated into an increasingly convergent, sophisticated indivisible systems. A perspective that will induce relevant advancements to the development of further scientific and operational applications on the forefront of production related to crucial areas of the defence systems and the unstoppable new implementations through the forthcoming discoveries and scientific advancements. Let us take for instance the tech of the no-nuclear powers producing the most advanced equipment, X-rays equipment, medical and industrial engineering in the civil use of nuclear applications and the existing wide energy production, then environment but how to forget the application of informative system in any professional entity and now even with domestic valuable relevance.

As before stated, we are in front of one of the most sophisticated and global industrial value chain productions ever existing, with competitors and countries also in exercises of old fashion but never abandoned trade and tariffs conflicts.

Here we might focus in recent clashes among main powers and alliances systems regarding telecommunications, digitalization processes, computing, social networks, privacy and patents urgent protection quests of a better governance for all citizens, companies and financial systems rights, in other words the data

²⁷ <https://www.strategyand.pwc.com/trend/2019-aerospace-defence>

²⁸ <https://nationalinterest.org/blog/buzz/meet-darpas-glide-breaker-hypersonic-missile-killer-42117>

protection next clash of civilization. The mission of the great powers must be then to avoiding unpredictable wars and to find the possible realistic solutions to any trade unbalancing divide, through negotiation, diplomatic solutions and appeasement. Nobody will force anybody in the future geopolitical scenario and in international relations disputes, this is a first conclusion of this paper.

Not for virtues but to avoid the following fatal retaliation with the same high-tech weapons. It's an unavoidable forecast but even a rejection heritage we European and Asians got from wrong policies of the dark past. We must in fact consider the European Union a very advanced and competitive industrial value chain in all the leading sectors of defense and security, capable already to compete globally. In fact, the EU and its most advanced countries have achieved a degree of competitiveness and standing that is now reflected in the official documents and programs moving rapidly towards these goals.

Institutional Determinants of Military Spending and Growth Implications

Daniel Albalade²⁹ and Germà Bel and Ferran Elias, from the University of Barcelona, elaborated a research published by Springer on Institutional Determinants of Military Spending. "Drawing on a database for 1988-2006 containing information on 157 countries, we investigate the effects on military spending of government form and democracy, electoral rules and concentration of parliamentary parties. From an OLS regression on pooled data, our results show that presidential democracies spend more than parliamentary systems on defense, whereas its interaction with a majoritarian electoral rule reduces the defense burden. Our findings suggest that, in contrast to theoretical predictions in the literature, institutions do not have the same impact on the provision of all public goods". This means, in other words, that political systems have great roles in the public good choices, depending their structure and decision-making process. Representative democracies then are less incline to support highering military expenditures while other autocratic institutions and governments - both if not elective parliament system or because constitutionally presidential political systems - are more following the requests of military building up. But this approach to splitting in two several institutional systems remains very volatile and is not generally speaking giving a robust decisive research support. In this case the regression on pooled data didn't give the expected indications. The same happens with the impact of defence spending on growth. It's evident that in a robust dual-technology environment the distance between the results of public spending on civil and military in terms of return over investments is the decisive factor but the econometric evidence is not generally speaking giving a decisive support. Reading the results available, as in "Military Expenditure, Investment and Growth" by John Paul Dunne ³⁰ there are not new achievements, even if the research is absolutely valuable. I quote his book: "This research considers the issues involved in estimating the effect of military expenditure on growth and the reasons

²⁹ <https://www.sciencedirect.com/science/article/pii/S0147596711000758>

³⁰

<https://www.tandfonline.com/action/showCitFormats?doi=10.1080%2F10242694.2019.1636182>

for the lack of consensus in the literature. It briefly reviews the economic theory, emphasizing the difficult identification issues involved in determining the interaction between military expenditure and output and discusses econometric methods for panels. It then takes advantage of the extended SIPRI military spending to construct a relatively large balanced panel of countries for the period 1960–2014.

Rather than the usual focus on the direct relation between military spending on growth, it focusses upon the investment channel. It provides estimates of various models examining the interaction between the three variables and finds that the data do not suggest any strong relations between military expenditure and either investment or growth. This is not unexpected given the theoretical and econometric problems identified³¹. This paper intends to focus on issues and conditionalities of strategic and technological factors top relevance for national economies, in presence of highly tech based defence systems and military capabilities in progress, with the robust upgrade both referring to triptych of main military powers before mentioned but also considering the valuable contribution of the European leading industrial high standards sectors in a growing international openness.

I will also comment on the recent findings and reports of the IISS-International Institute for Strategic Studies in London and the SIPRI before mentioned on the main developments and trends in the defence industrial sectors analysed throughout 2018, with particular reference to the challenges on the control of nuclear weapons and in the cyber war sector, with a focus on Quantum and its extraordinary potential in the fields of Defence and in our citizen life and cyber security.

The data will also offer the opportunity to measure an indicative size of the relative civil/military output of the main industrial groups or consortiums worldwide. Starting this year, also China data of the military industrial sectors start to be included into the SIPRI and IISS dataset³¹.

The data by SIPRI-Stockholm International Peace Research Institute, the authoritative Swedish Institute in the field of military spending of world governments in armaments, in fact demonstrates a progressive expansion of orders and technological cooperation among European industrial groups. Italy as well has an important international technological and production role, ranking at the nine position in the all world countries scale, with industrial groups that have taken leading positions in the main sectors of military production and in the export of weapons systems, often in cooperation with European³² and U.S. partners. Global defence spending in 2018 was at record high: 4 charts that show where the money goes³³. SIPRI jointly with World Economic Forum issued a Report 2018 to alert all of us that Global defence spending is at a record recent history high³⁴.

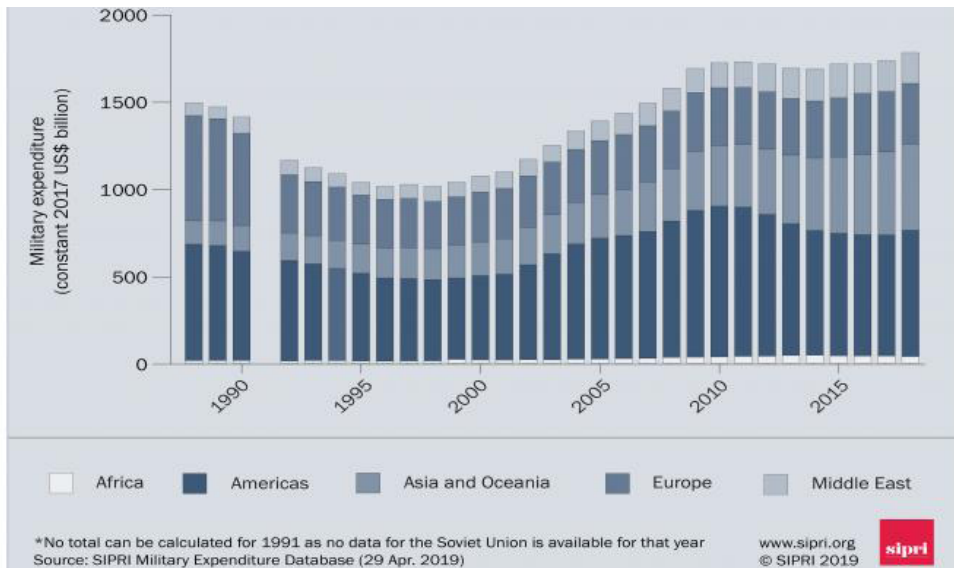
³¹ https://www.sipri.org/sites/default/files/2019-04/fs_1904_milex_2018.pdf

³² <https://www.eda.europa.eu/info-hub/publications/publication-details/pub/annual-report-2018>

³³ <https://www.weforum.org/agenda/2019/04/4-charts-that-show-the-state-of-global-military-spending-now-at-its-highest-since-the-cold-war/>

³⁴ https://www.sipri.org/sites/default/files/2019-04/fs_1904_milex_2018.pdf;

World military expenditure grows to \$1.8 trillion in 2018³⁵



World military spending 1988–2018. Data and graphic: SIPRI 29 April 2019

Total world military expenditure rose to \$1822 billion in 2018, representing an increase of 2.6 per cent from 2017, according to new data from the Stockholm International Peace Research Institute (SIPRI). The five biggest spenders in 2018 were the United States, China, Saudi Arabia, India and France, which together accounted for 60 per cent of global military spending. Military spending by the USA increased for the first time since 2010, while spending by China grew for the 24th consecutive year. The comprehensive annual update of the SIPRI Military Expenditure Database is accessible from today at www.sipri.org.

Total global military spending rose for the second consecutive year in 2018, to the highest level since 1988—the first year for which consistent global data is available. World spending is now 76 per cent higher than the post-cold war low in 1998.* World military spending in 2018 represented 2.1 per cent of global gross domestic product (GDP) or \$239 per person. ‘In 2018 the USA and China accounted for half of the world’s military spending,’ says Dr Nan Tian, a researcher with the SIPRI Arms and Military Expenditure (AMEX) programme. ‘The higher level of world military expenditure in 2018 is mainly the result of significant increases in spending by these two countries.’

The USA and China lead increase in world military expenditure

US military spending grew—for the first time since 2010—by 4.6 per cent, to reach \$649 billion in 2018. The USA remained by far the largest spender in the world, and spent almost as much on its military in 2018 as the next eight largest-spending

³⁵ <https://www.sipri.org/media/press-release/2019/world-military-expenditure-grows-18-trillion-2018>

countries combined. ‘The increase in US spending was driven by the implementation from 2017 of new arms procurement programmes under the Trump administration,’ says Dr Aude Fleurant, the director of the SIPRI AMEX programme. China, the second-largest spender in the world, increased its military expenditure by 5.0 per cent to \$250 billion in 2018. This was the 24th consecutive year of increase in Chinese military expenditure. Its spending in 2018 was almost 10 times higher than in 1994, and accounted for 14 per cent of world military spending. ‘Growth in Chinese military spending tracks the country’s overall economic growth,’ says Tian. ‘China has allocated 1.9 per cent of its GDP to the military every year since 2013.’

Three decades of growth in military spending in Asia and Oceania

Military expenditure in Asia and Oceania has risen every year since 1988. At \$507 billion, military spending in the region accounted for 28 per cent of the global total in 2018, compared with just 9.0 per cent in 1988. In 2018 India increased its military spending by 3.1 per cent to \$66.5 billion. Military expenditure by Pakistan grew by 11 per cent (the same level of growth as in 2017), to reach \$11.4 billion in 2018. South Korean military expenditure was \$43.1 billion in 2018—an increase of 5.1 per cent compared with 2017 and the highest annual increase since 2005.

‘The tensions between countries in Asia as well as between China and the USA are major drivers for the continuing growth of military spending in the region,’ says Siemon Wezeman, a senior researcher with the SIPRI AMEX programme.

Increases in Central and East European countries

Several countries in Central and Eastern Europe made large increases in their military expenditure in 2018. Spending by Poland rose by 8.9 per cent in 2018 to \$11.6 billion, while Ukraine’s spending was up by 21 per cent to \$4.8 billion. Spending by Bulgaria, Latvia, Lithuania and Romania also grew (ranging from 18 per cent to 24 per cent) in 2018. ‘The increases in Central and Eastern Europe are largely due to growing perceptions of a threat from Russia,’ said Pieter Wezeman, a senior researcher with the SIPRI AMEX programme. ‘This is despite the fact that Russian military spending has fallen for the past two years.’

At \$61.4 billion, Russian military spending was the sixth highest in the world in 2018. Its spending decreased by 3.5 per cent compared with 2017.

Other notable developments

Military spending in South America rose by 3.1 per cent in 2018. This was mainly due to the increase in Brazilian spending (by 5.1 per cent), the second increase in as many years. Military expenditure in Africa fell by 8.4 per cent in 2018, the fourth consecutive annual decrease since the peak in spending in 2014. There were major decreases in spending by Algeria (–6.1 per cent), Angola (–18 per cent) and Sudan (–49 per cent). Military spending by states in the Middle East for which data is available fell by

1.9 per cent in 2018.

Total military expenditure by all 29 North Atlantic Treaty Organization members was \$963 billion in 2018, which accounted for 53 per cent of world spending. The largest absolute increase in spending in 2018 was by the USA (\$27.8 billion), while the biggest decrease was by Saudi Arabia (-\$4.6 billion).

Military spending in Turkey increased by 24 per cent in 2018 to \$19.0 billion, the highest annual percentage increase among the world's top 15 military spenders.

Six of the 10 countries with the highest military burden (military spending as a proportion of GDP) in the world in 2018 are in the Middle East: Saudi Arabia (8.8 per cent of GDP), Oman (8.2 per cent), Kuwait (5.1 per cent), Lebanon (5.0 per cent), Jordan (4.7 per cent) and Israel (4.3 per cent).

* All percentage changes are expressed in real terms (constant 2017 prices).



Table 1. The 40 countries with the highest military expenditure in 2018

Spending figures and GDP are in US\$, at current prices and exchange rates. Changes are in real terms, based on constant (2017) US\$. Percentages below 10 are rounded to 1 decimal place; those over 10 are rounded to whole numbers. Figures and percentage shares may not add up to stated totals or subtotals due to the conventions of rounding.

Rank	Rank		Country	Spending (\$ b), 2018	Change (%), 2009-18	Spending as a share of GDP (%) ^b		World share (%), 2018
	2018	2017 ^a				2018	2009	
1	1		United States	649	-17	3.2	4.6	36
2	2		China	[250]	83	[1.9]	[2.1]	[14]
3	3		Saudi Arabia	[67.6]	28	[8.8]		[3.7]
4	5		India	66.5	29	2.4	2.9	3.7
5	6		France	63.8	1.6	2.3	2.5	3.5
Subtotal top 5				1 097	..	..	..	60
6	4		Russia	61.4	27	3.9	3.9	3.4
7	7		United Kingdom	50.0	-17	1.8	2.4	2.7
8	9		Germany	49.5	9.0	1.2	1.4	2.7
9	8		Japan	46.6	2.3	0.9	1.0	2.6
10	10		South Korea	43.1	28	2.6	2.7	2.4
Subtotal top 10				1 347	..	..	..	74
11	13		Italy	27.8	-14	1.3	1.6	1.5
12	11		Brazil	27.8	17	1.5	1.5	1.5
13	12		Australia	26.7	21	1.9	1.9	1.5
14	14		Canada	21.6	12	1.3	1.4	1.2
15	15		Turkey	19.0	65	2.5	2.5	1.0
Subtotal top 15				1 470	..	..	..	81
16	16		Spain	18.2	-5.2	1.3	1.3	1.0
17	17		Israel	15.9	-5.8	4.3	6.8	0.9
18	18		Iran	13.2	-10	2.7	3.2	0.7
19	24		Poland	11.6	48	2.0	1.8	0.6
20	19		Pakistan	11.4	73	4.0	3.3	0.6
21	25		Netherlands	11.2	-4.4	1.2	1.4	0.6
22	21		Singapore	10.8	13	3.1	3.9	0.6
23	20		Taiwan	10.7	-2.9	1.8	2.3	0.6
24	23		Colombia	10.6	15	3.2	3.9	0.6
25	22		Algeria	9.6	85	5.3	3.8	0.5
26	26		Indonesia	7.4	99	0.7	0.6	0.4
27	29		Kuwait	7.3	39	5.1	4.0	0.4
28	30		Norway	7.1	23	1.6	1.6	0.4
29	31		Thailand	6.8	16	1.3	1.8	0.4
30	28		Oman	[6.7]	69	[8.2]	[7.0]	[0.4]
31	32		Mexico	6.6	36	0.5	0.5	0.4
32	27		Iraq	6.3	58	2.7	2.9	0.3
33	33		Sweden	5.8	18	1.0	1.2	0.3
34	35		Chile	5.6	25	1.9	2.3	0.3
35	37		Viet Nam	5.5	76	2.3	2.3	0.3
36	36		Greece	5.2	-46	2.4	3.2	0.3
37	39		Belgium	5.0	-12	0.9	1.2	0.3
38	38		Switzerland	4.8	6.3	0.7	0.7	0.3
39	43		Ukraine	4.8	69	3.8	[2.8]	0.3
40	46		Romania	4.6	112	1.9	1.3	0.3
Subtotal top 40				1 683	..	..	..	93
World				1 822	5.4	2.1	2.6	100

.. = data not available or not applicable; [] = SIPRI estimate; GDP = gross domestic product.

^a Rankings for 2017 are based on updated military expenditure figures in the current edition of the SIPRI Military Expenditure Database. They may therefore differ from the rankings for 2017 given in *SIPRI Yearbook 2018* and in other SIPRI publications in 2018.

^b The figures for military expenditure as a share of GDP are based on estimates of 2018 GDP from the International Monetary Fund World Economic Outlook and International Financial Statistics databases.

Sources: SIPRI Military Expenditure Database, Apr. 2019; International Monetary Fund, World Economic Outlook Database, Oct. 2018; and International Monetary Fund, International Financial Statistics Database, Sep. 2018.



Annex 1. The SIPRI Top 100 arms-producing and military services companies in the world excluding China, 2017^d

Figures for arms sales and total sales are in millions of US dollars.

Rank ^b		Company ^c	Country	Arms	Arms	Change in	Total	Arms
2017	2016			sales, 2017	sales, 2016	arms sales,			sales, 2017	sales as a
				(US\$ m.)	(constant	2016–17	(US\$ m.)	% of total
					2017 US\$ m.) ^d	(%)		sales, 2017
1	1	Lockheed Martin Corp.	United States	44 920	41 486	8.3	51 048	88
2	2	Boeing	United States	26 930	30 132	-11	93 392	29
3	3	Raytheon	United States	23 870	23 393	2.0	25 348	94
4	4	BAE Systems	United Kingdom	22 940	22 208	3.3	23 490	98
5	5	Northrop Grumman Corp.	United States	22 370	21 851	2.4	25 803	87
6	6	General Dynamics Corp.	United States	19 460	19 635	-0.9	30 973	63
7	7	Airbus Group	Trans-European ^e	11 290	12 928	-13	75 239	15
8	9	Thales	France	9 000	8 420	6.9	17 799	51
9	8	Leonardo	Italy	8 860	8 781	0.9	12 990	68
10	13	Almaz-Antey	Russia	8 570	7 320	17	9 122	94
11	11	United Technologies Corp.	United States	7 780	7 015	11	59 837	13
12	10	L-3 Communications	United States	7 750	7 791	-0.5	9 753	79
13	12	Huntington Ingalls Industries	United States	6 470	6 862	-5.7	7 441	87
14	14	United Aircraft Corp.	Russia	6 440	6 182	4.2	7 744	83
15	19	United Shipbuilding Corp.	Russia	4 980	4 864	2.4	5 583	89
16	22	Honeywell International	United States	4 460	3 553	26	40 534	11
17	16	Rolls-Royce	United Kingdom	4 420	4 336	1.9	19 346	23
18	17	Leidos	United States	4 380	4 391	-0.2	10 170	43
19	23	Naval Group	France	4 130	3 586	15	4 167	99
20	15	Textron	United States	4 100	4 860	-16	14 198	29
21	20	Booz Allen Hamilton	United States	4 060	4 084	-0.6	5 804	70
22	36	General Electric	United States	3 830	2 532	51	122 100	3
23	35	Tactical Missiles Corp.	Russia	3 600	3 031	19	3 623	99
24	21	Mitsubishi Heavy Industries	Japan	3 570	3 573	-0.1	36 649	10
25	25	Rheinmetall	Germany	3 420	3 373	1.4	6 644	51
26	26	MBDA	Trans-European ^e	3 380	3 346	1.0	3 501	97
27	24	Babcock International Group	United Kingdom	3 230	3 294	-1.9	6 876	47
28	27	Elbit Systems	Israel	3 220	3 313	-2.8	3 395	95
29	32	Russian Helicopters	Russia	3 170	3 139	1.0	3 908	81
30	29	Bechtel Corp. ^f	United States	3 150	2 879	9.4	25 900	12
31	18	Harris Corp.	United States	3 040	4 288	-29	6 182	49
32	28	CACI International	United States	2 980	2 890	3.1	4 468	67
33	34	Safran	France	2 910	2 679	8.6	19 090	15
34	46	High Precision Systems	Russia	2 830	2 324	22	2 907	97
35	31	Science Applications International Corp.	United States	2 760	2 685	2.8	4 454	62
36	30	Saab	Sweden	2 670	2 818	-5.3	3 180	84
37	38	Indian Ordnance Factories	India	2 650	2 442	8.5	2 764	96
38	37	Hindustan Aeronautics	India	2 610	2 635	-0.9	2 764	94
39	39	CSRA	United States	2 580	2 297	12	5 400	48
40	51	United Engine Corp.	Russia	2 570	2 049	25	4 026	64
41	33	Israel Aerospace Industries	Israel	2 480	2 790	-11	3 538	70
42	47	Orbital ATK	United States	2 390	1 960	22	4 764	50

Rank ^b		Company ^c	Country	Arms	Arms	Change in	Total	Arms
2017	2016			sales, 2017	sales, 2016	arms sales,			sales, 2017	sales as a
				(US\$ m.)	(constant	2016-17	(US\$ m.)	% of total
					2017 US\$ m.) ^d	(%)		sales, 2017
43	41	Rockwell Collins	United States	2 300	2 277	1.0	6 822	34
44	48	General Atomics ^f	United States	2 220	1 950	14	..	..
45	45	Rafael	Israel	2 210	2 127	3.9	2 258	98
46	44	CEA	France	2 170	2 082	4.2	5 640	39
47	-	Russian Electronics ^g	Russia	2 140	1 894	13	3 771	57
48	42	Kawasaki Heavy Industries	Japan	2 140	2 112	1.3	14 035	15
49	40	Hanwha Techwin	South Korea	2 130	2 354	-9.5	3 729	57
50	61	Dassault Aviation Groupe	France	2 120	1 432	48	5 418	39
51	43	AECOM	United States	2 070	2 165	-4.4	18 203	11
52	54	KRET	Russia	2 060	1 929	6.8	2 398	86
53	49	ThyssenKrupp	Germany	1 920	1 831	4.8	46 706	4
54	64	Oshkosh Corp.	United States	1 840	1 378	33	6 830	27
55	78	KBR	United States	1 750	1 113	57	4 171	42
56	80	Krauss-Maffei Wegmann	Germany	1 750	1 086	61	1 803	97
57	52	ST Engineering	Singapore	1 680	1 706	-1.5	4 794	35
58	55	Fincantieri	Italy	1 660	1 653	0.4	5 657	29
59	58	Cobham	United Kingdom	1 580	1 510	4.6	2 632	60
60	56	LIG Nex1	South Korea	1 560	1 674	-6.8	1 558	100
61	68	ASELSAN	Turkey	1 420	1 101	29	1 469	97
62	65	DynCorp International	United States	1 420	1 307	8.6	2 004	71
63	67	GKN	United Kingdom	1 410	1 179	20	13 345	11
64	74	Bharat Electronics	India	1 380	1 232	12	1 616	86
65	60	ManTech International Corp.	United States	1 360	1 491	-8.8	1 717	79
66	53	UralVagonZavod	Russia	1 340	2 013	-33	2 223	60
67	63	Engility	United States	1 300	1 378	-5.7	1 932	67
68	66	BWX Technologies	United States	1 300	1 276	1.9	1 688	77
69	59	Serco	United Kingdom	1 250	1 462	-14	4 244	29
70	77	Turkish Aerospace Industries	Turkey	1 220	1 028	19	1 420	86
71	73	Aerojet Rocketdyne	United States	1 220	1 205	1.3	1 877	65
72	82	TransDigm Group	United States	1 190	970	23	3 504	34
73	76	PGZ	Poland	1 190	1 212	-1.8	1 323	90
74	-	Hensoldt ^h	Germany	1 160	1 200	-3.3	1 217	95
75	92	Vencore	United States	1 130	878	29	1 372	83
76	71	Vectrus	United States	1 120	1 215	-7.8	1 115	100
77	75	Fujitsu	Japan	1 110	1 119	-0.8	36 539	3
78	70	IHI Corp.	Japan	1 070	1 158	-7.6	14 175	8
79	88	Sierra Nevada Corp. ^f	United States	1 020	919	11	1 600	64
80	83	Austal	Australia	1 020	999	2.1	1 067	96
81	79	UkrOboronProm	Ukraine	1 020	1 148	-11	1 053	96
82	-	DXC ⁱ	United States	1 000	1 021	-2.1	24 556	4
83	87	Nexter	France	960	938	2.4	1 014	95
84	85	Embraer	Brazil	950	1 055	-10	5 821	16
85	72	DSME	South Korea	940	1 245	-25	9 821	10
86	86	Teledyne Technologies	United States	920	929	-1.0	2 604	35
87	108	Navantia	Spain	910	738	23	976	93
88	81	Jacobs Engineering Group	United States	900	1 011	-11	10 022	9
89	89	Precision Castparts Corp.	United States	900	899	0.2	9 003	10



Rank ^b	2017	2016	Company ^c	Country	Arms sales, 2017 (US\$ m.)	Arms sales, 2016 (constant 2017 US\$ m.) ^d	Change in arms sales, 2016-17 (%)	Total sales, 2017 (US\$ m.)	Arms sales as a % of total sales, 2017
90	90		Cubic Corp.	United States	890	899	-1.0	1 486	60
91	98		Curtiss-Wright Corp.	United States	890	807	10	2 271	39
92	91		The Aerospace Corp.	United States	890	888	0.2	973	91
93	84		Meggitt	United Kingdom	880	916	-3.9	2 599	34
94	106		Bharat Dynamics	India	880	782	13	877	100
95	96		RUAG	Switzerland	870	824	5.6	1 985	44
96	102		MIT	United States	870	786	11	1 015	86
97	94		Moog	United States	860	847	1.5	2 498	35
98	50		Korea Aerospace Industries	South Korea	860	1 842	-53	1 833	47
99	97		NEC Corp.	Japan	850	789	7.8	..	..
100	99		CAE	Canada	840	809	3.8	2 181	38

.. = data not available; Corp. = Corporation.

^a Although several Chinese arms-producing companies are large enough to rank among the SIPRI Top 100, it has not been possible to include them because of a lack of comparable and sufficiently accurate data for more than 3 years for some companies and no information at all for others.

^b Companies are ranked according to the value of their arms sales at the end of what SIPRI considers to be their financial year. A dash (-) indicates that the company did not rank among the Top 100 for 2016. Company names and structures are listed as they were at the end of their financial year. Information about subsequent changes is provided in these notes. Rankings for 2016 are based on the updated arms-production figures. They may differ from those published in any earlier SIPRI publication and elsewhere owing to continual revision of data, most often because of changes reported by the company itself and sometimes because of improved estimations. Major revisions are explained in these notes.

^c Holding and investment companies with no direct operational activities are not treated as arms-producing companies, and companies owned by them are listed and ranked as if they were parent companies.

^d To allow comparison with arms sales in 2017, figures for arms sales in 2016 are given in constant 2017 US dollars.

^e Trans-European refers to companies whose ownership and control structures are located in more than one European country.

^f The arms sales figure for this company is an estimate with a high degree of uncertainty.

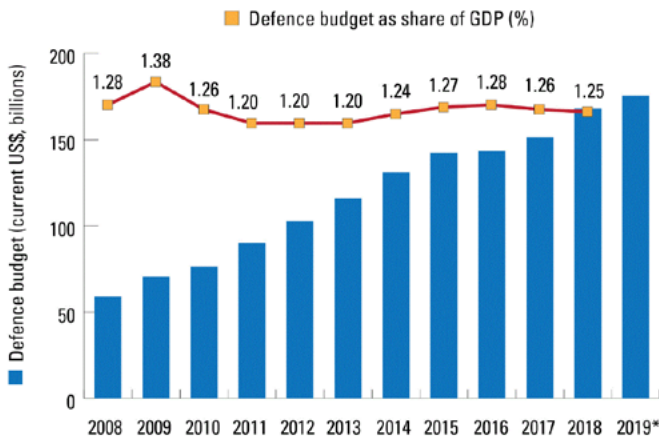
^g Russian Electronics was formed following the merger of United Instrument Manufacturing Corporation and Russian Electronics. Its 2016 arms sales figures are 'pro forma', i.e. they are the combined 2016 arms sales of both companies.

^h Hensoldt was created in 2017 as a result of the acquisition by an investment fund (KKR) of a German division of Airbus Group that produces military electronics. Its 2016 arms sales figures are 'pro forma', i.e. they are the arms sales of the division of Airbus Group in 2016.

ⁱ DXC is the result of the merger of Computer Sciences Corporation with relevant parts of Hewlett Packard Enterprise Services' (HPES) business. Its 2016 arms sales figures are 'pro forma', i.e. they are the arms sales of the estimated arms sales of the parts of HPES included in DXC.

Source: SIPRI Arms Industry Database, Dec. 2018.

China's defence budget, 2008-19



*PRC announced defence budget 2019

Table 1. The 25 largest exporters of major arms and their main clients, 2014–18

Note: Percentages below 10 are rounded to 1 decimal place; percentages over 10 are rounded to whole numbers.

Exporter	Share of arms exports (%)		Per cent change from 2009–13 to 2014–18 ^a	Main clients (share of exporter's total exports, %), 2014–18		
	2014–18	2009–13		1st	2nd	3rd
1 United States	36	30	29	Saudi Arabia (22)	Australia (7.7)	UAE (6.7)
2 Russia	21	27	-17	India (27)	China (14)	Algeria (14)
3 France	6.8	5.1	43	Egypt (28)	India (9.8)	Saudi Arabia (7.4)
4 Germany	6.4	6.1	13	South Korea (19)	Greece (10)	Israel (8.3)
5 China	5.2	5.5	2.7	Pakistan (37)	Bangladesh (16)	Algeria (11)
6 United Kingdom	4.2	4.3	5.9	Saudi Arabia (44)	Oman (15)	Indonesia (11)
7 Spain	3.2	2.9	20	Australia (42)	Turkey (13)	Saudi Arabia (8.3)
8 Israel	3.1	2.1	60	India (46)	Azerbaijan (17)	Viet Nam (8.5)
9 Italy	2.3	2.7	-6.7	Turkey (15)	Algeria (9.1)	Israel (7.6)
10 Netherlands	2.1	1.9	16	Jordan (15)	Indonesia (15)	USA (11)
11 South Korea	1.8	1.0	94	Indonesia (17)	Iraq (17)	UK (15)
12 Ukraine	1.3	2.7	-47	China (27)	Russia (23)	Thailand (14)
13 Switzerland	1.0	0.9	20	Saudi Arabia (19)	China (18)	Indonesia (9.3)
14 Turkey	1.0	0.4	170	UAE (30)	Turkmenistan (23)	Saudi Arabia (10)
15 Sweden	0.7	1.9	-62	Saudi Arabia (16)	UAE (14)	Algeria (10)
16 Canada	0.6	0.9	-33	Saudi Arabia (22)	India (13)	UAE (7.6)
17 Norway	0.5	0.6	-12	Oman (28)	Finland (23)	USA (21)
18 UAE	0.3	0.2	103	Egypt (41)	Jordan (10)	Yemen (7.6)
19 Czechia	0.3	0.1	472	Iraq (40)	USA (17)	Viet Nam (9.9)
20 Belarus	0.3	0.5	-26	Viet Nam (37)	Sudan (18)	Myanmar (12)
21 Australia	0.3	0.3	3.9	USA (53)	Indonesia (25)	Oman (8.8)
22 South Africa	0.3	0.5	-35	USA (21)	UAE (21)	India (9.8)
23 Brazil	0.2	0.2	21	Afghanistan (32)	Indonesia (25)	Lebanon (9.1)
24 Finland	0.2	0.2	-9.1	Poland (56)	UK (7.1)	Sweden (6.7)
25 Portugal ^b	0.2	0.0	457	Romania (89)	Belgium (7.0)	Uruguay (2.7)

UAE = United Arab Emirates.

^a Figures show the change in volume of the total arms exports per exporter between the 2 periods.

^b For Portugal, the percentage change from 2009–13 to 2014–18 is 0.03%.

Source: SIPRI Arms Transfers Database, Mar. 2019.

The French president Macron and the German Chancellor Merkel have in fact announced for the first time that the preparation of the common project for the new Future Combat Air System (FCAS) started as early as on July 2017, with the aim of creating both a fighter jet and a vast array of weapons and associated defence systems, including future generation drones. Spain has also announced its participation in the implementation and industrial partnership for these European programs. The two aeronautical companies should present the prototypes of the aircraft and turbines that will equip it by mid-2019 and the new Eurofighter will be implemented and assigned to the partner countries Air Force starting the 2025.

A target that will expand competitiveness by European players in the aerospace sector such as Airbus, Dassault, Leonardo, Thales; ThyssenKrupp; Krauss-Maffei Wegmann, Safran, Navantia, Aemnova Aerospace, Saab AB (mentioning the most competitive players in defence and aerospace groups) but also in the energy, robotics, environment and above all cyber war, which perceive competitiveness in more explicit terms the increasingly close interference of antagonistic countries, with the threat to internal security, both military and political.

Some data may better focus Europe position in the Defence industry better appreciated than commonplaces circulating in the international arena would try to endorse. “Creating a fully-fledged European Defence Union by 2025”³⁶ is imperative to Europe’s security and to build a Union that protects, as I mentioned before. A smooth, efficient and effective movement of military personnel and assets across and beyond the EU will enhance preparedness and response to crises. It will enable EU Member States to act faster, in line with their defence needs and responsibilities, both in the context of the Common Security and Defence Policy missions and operations, and in the framework of national and multinational activities.

Currently, cross-border mobility is still hampered by a number of barriers that can lead to delays, disruption, higher costs or increased vulnerability”, Jean-Claude Juncker President of the European Commission stated firmly on the State of The Union report on 2017. European Union has now its new President of the Commission just elected by the Parliament, Ursula von der Leyen³⁷, a quite determined personality, former Defence Minister of Germany, the first woman leading the governance of EU since the its constitution on 1956 in Rome. EU will have a new Commission and the elected President. We will follow the developments on these issues.

In fact, Dassault Aviation and Airbus (now the world’s leading civil aircrafts manufacturer), have announced that they will implement, by 2024, a new advanced air superiority stealth aircraft - a jet that will replace the French Dassault Rafale and the Airbus Eurofighter series - with a political decision that will dilute de facto EU countries availability to ordering high numbers in the acquisition of the US produced F-35 last stealth version, as recently Japan had announced to have already chosen for its future air force.

France, Germany, Spain and other European countries are aspiring to be competitive with a new edition of the Eurofighter stealth as well and the collateral full equipment³⁸, dedicating a relevant financial endowment of Euro to these medium term technologic defence/civil achievements.

Of course, the specificities of the defence and military industrial productions facing with the civil ones have peculiars but not as much as in the far past, when the technologic knowledges divide for the two sectors was a sharp border line, with a limited integration and sharing. The case of Airbus is an example of industrial

³⁶ https://www.iss.europa.eu/sites/default/files/EUISSFiles/EXPO_STU%282019%29603478_EN1.pdf

³⁷ https://ec.europa.eu/commission/biography-candidate-present_en#biography-of-the-candidate-for-president

³⁸ Creating a fully-fledged European Defence Union by 2025; <https://euro-sd.com/2019/06/articles/13666/a-long-life-for-the-spanish-eurofighter/>

successful strategies where France, Germany but also UK (stepping out just few years ago), and now with Italy, Spain and other EU partners are sharing advanced projects the group based in Toulouse.

But after the Airbus let mention one of the others new top ten main player: the Italian Leonardo Group Aerospace, Defence and Security, a really value chain protagonist in these wide dual-technologies industrial sectors: Leonardo Group³⁹.

Three years ago, Leonardo Group merged and aggregated all the top national industries with consolidated dual-tech knowledges and capabilities, outstanding human capital and constant attention to innovation was launched in 2017, in order to compete and grow in market shares and industrial international partnerships. These factors have led the Italian Group to become one of the top ten players in the world Aerospace, Defence and Security, with revenues of € 12.2 billion last year, 85% of which deriving from international markets. This Industrial Group global company is a partner of choice for many governments, institutions and Armed Forces, as well as for private customers and entities.

The fan of systems and products offered is wide: products and integrated solutions based on cutting-edge technologies with dual-use applications, to strengthen global security; protect people, the territories, infrastructures and information networks; contribute to the sustainable management of the environment, urban spaces and climate. Leonardo Group ensures that customers to obtaining the most value from offered systems through innovative support and training services. Many of the global most advanced defence fighters, helicopters, electronic advancements, air space control and advanced warfare equipment come from European consortium and industrial groups as the one now mentioned. The convergence into value chains⁴⁰ (by the way, the main focus of our Conference here in Singapore) of the most important industrial groups supplying products and equipment both for wide civil output and specific industrial chain and for the defence sectors, moreover, is very supportive in the highest international relations because involving all the main EU countries.

Their most active industrial groups in the defence sector by the way had resulted in many successful outcomes and some few failures. Of course, it was emerging - in the years coming close to the present dual high-tech extraordinary jump ahead, both in civil and military products - some recent frictional approaches between US and EU⁴¹ on military industry and defence dual technologies.

To talk of a new industrial revolution might sound pleonastic but in fact we really are moving in an industrial and connected services territory never before experienced, with efficient value chains already well established, specifically for European industries, from main groups to SME's companies.

³⁹ <https://www.leonardocompany.com/home>

⁴⁰ <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/industry-global-value-chains-connectivity-and-regional-smart-specialisation-europe-overview>

⁴¹ <https://www.iss.europa.eu/sites/default/files/EUISSFiles/7%20US-EU%20defence%20industries.pdf>

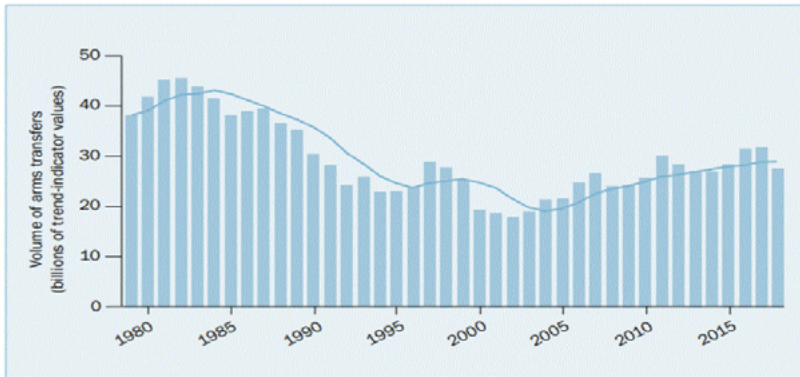


Figure 1. The trend in international transfers of major arms, 1979–2018



(<https://ec.europa.eu>)

Internal Market, Industry, Entrepreneurship and SMEs

European Defence Fund on track with €525 million for Eurodrone and other joint research and industrial projects

Published on: 19/03/2019

The Commission has today adopted work programmes to co-finance joint defence industrial projects in 2019-2020 worth up to €500 million. A further €25 million have been earmarked to support collaborative defence research projects in 2019, with calls for proposals launched today.

The **Juncker** Commission is making an unprecedented effort to protect and defend Europeans. From 2021, a fully-fledged European Defence Fund will foster an innovative and competitive defence industrial base and contribute to the EU's strategic autonomy. Through two precursors to the Fund, the Commission is taking steps to make defence cooperation under the EU budget a reality as of now. The Preparatory Action on Defence Research (PADR) continues to deliver for the third year running. And with today's decisions, the Commission kick-starts the first EU-funded joint defence industrial projects through the European Defence Industrial Development Programme (EDIDP). This will focus on areas including drone technology, satellite communication, early warning systems, artificial intelligence, cyberdefence or maritime surveillance.

Vice-President Jyrki **Katainen**, responsible for Jobs, Growth, Investment and Competitiveness said: "Cooperation in defence is the only way to protect and defend Europeans in an increasingly instable world. We are doing our part. Joint projects are materialising. European Defence is happening. On the basis of this successful experience we will scale up funding to have a fully-fledged European Defence Fund in place in 2021."

Commissioner Elżbieta **Bieńkowska**, responsible for Internal Market, Industry, Entrepreneurship and SMEs, added: "To ensure Europe can protect its citizens, we need cutting-edge defence technology and equipment in areas like artificial intelligence, drone technology, satellite communication and intelligence systems. With the EU investments we are

launching today, we are going from ideas to concrete projects, we are strengthening the competitiveness of our defence industries."

Joint development of defence equipment and technology:

The first European Defence Industrial Development Programme (EDIDP) work programme agreed with the EU countries provides €500 million in co-financing for the joint development of defence capabilities during 2019-2020. In the coming days the Commission will publish 9 calls for proposals for 2019, and 12 further calls will follow for 2020. These calls will cover priority areas in all domains – air, land, sea, cyber and space:

- **Enabling operations, protection and mobility of military forces:** €80 million is available to help develop CBRN threat detections capabilities or counter drone systems
- **Intelligence, secured communication & Cyber:** €182 million will cover cyber situational awareness and defence, space situational awareness and early warning capabilities, or maritime surveillance capabilities
- **Ability to conduct high-end operations:** €71 million will support the upgrade or the development of the next generation of ground-based precision strike capabilities, ground combat capabilities, air combat capabilities and future naval systems
- **Innovative defence technologies & SMEs:** €27 million will support solutions in Artificial Intelligence, Virtual Reality and Cyber technologies, as well as to support SMEs
- **In addition, two projects have been proposed for direct award:** €100 million to support the development of the **Eurodrone**, a crucial capability for Europe's strategic autonomy, and €37 million to support **ESSOR** interoperable and secure military communications

Financing innovation in defence research:

Today Commission publishes calls for proposals under the Preparatory Action on Defence Research (PADR), the third and final budget tranche under the Juncker Commission. The 2019 Work Programme will dedicate €25 million for research in Electromagnetic Spectrum Dominance and Future Disruptive Defence Technologies - two areas identified as essential to maintain Europe's technological lead and independence in the long-term.

The calls on Future Disruptive Defence Technologies will look at how best the EU can support disruptive technologies in defence that may lead to transformational changes in the military. This will help prepare the ground for the European Defence Fund which could allocate up to 8% of its budget for disruptive technologies.

Next steps

Eligible consortia can apply to the 2019 calls for proposals until the end of August. The first projects will be selected before the end of 2019, followed by the official signing of grant agreements.

With both programmes now operational and running, the Commission is paving the way for a fully-fledged European Defence Fund for the next financial period 2021-2027.

Background

In his political guidelines in June 2014, President Juncker made strengthening European citizens' security a priority. He announced the creation of a European Defence Fund in his 2016 State of the Union address. The Commission presented a first set of actions in June 2017 to allow defence cooperation at EU level to be tested by means of the Preparatory Actions on Defence Research for 2017-2019, as well as through the European Defence Industrial Development Programme for 2019-2020.

In June 2018, the Commission proposed a fully-fledged €13 billion European Defence Fund. The Fund will place the EU among the top 4 defence research and technology investors in Europe, and act as a catalyst for an innovative and competitive industrial and scientific base. The EU institutions in February 2019 reached a [partial political agreement on](#)

With a yearly turnover of EUR almost 100 billion, 500.000 directly employed and 1.2 million indirect jobs, the European defence industry is a vital, competitive industrial sector. It is characterized by economic and technological components that are valuable factors for EU industrial competitiveness and partnership in the world.

France and Germany announced this year a start-up of 65 million euro contracts, equally funded by both countries, to launch the joint program to build the before mentioned sophisticated and highly advanced fighter interdiction multitasking role jet new-generation, for long-range missions capabilities.

For the same crucial reasons, the future of the advanced technologies and the values added transferred through the defence and security procurements of the European Union to the partner countries even beyond the EU members - as de facto in the past had been successfully developed, to other no-members countries relevant from the point of view of technologic high competences, research involvement and strategic choices - the European industrial civil sectors structure competitiveness and high technologic achievements capabilities have a vital integrated value added in the really critical value added widening of dual technologic sharing standards with other partner countries. And of course "Europe First" is so far from the cultural and intellectual vision of mainly all the Europeans citizens to emerging as an effective deterrence for any supremacist velleitarian slogan disturbing their political vision and scopes.

In the past, the same had happened in the car factories industries sectors, until when the European main groups had competitive and ready to start the acquisition of factories and groups in Asia and in the Americas, starting from U.S. and moving further in other deals, investments, merger and acquisitions.

Of course, the specificities of the defence and military industrial productions facing with the civil ones have peculiars but not as much as in the far past, when the technologic knowledges divide for the two sectors was a sharp border line, with a limited integration and sharing.

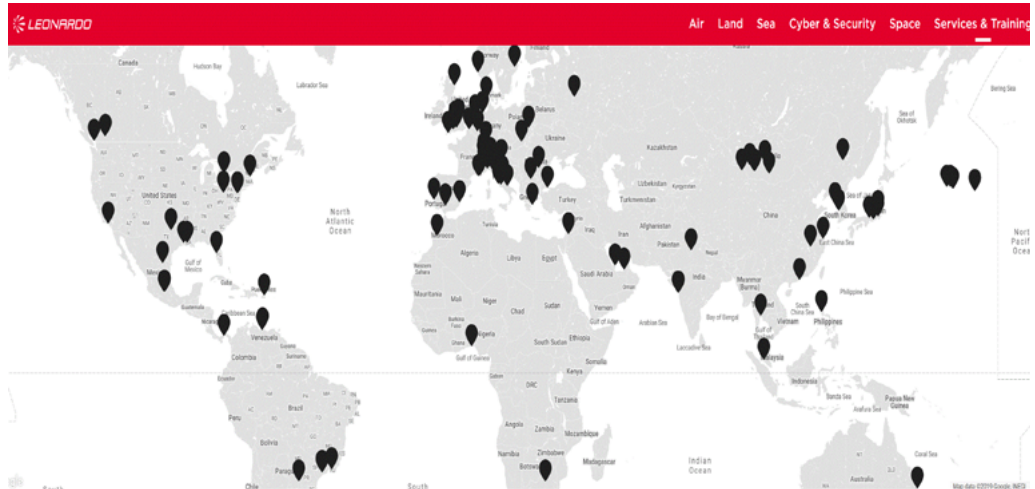
The case of Airbus⁴² is a global example of industrial successful strategies where France, Germany and UK (unfortunately stepping out just few years ago), are sharing also with Italy and Spain joint civil-military projects with the Group based in Toulouse. And even now, many of the European most advanced defence fighters, helicopters, electronic advancements, and air space control, advanced warfare equipment come from EU consortium and industrial groups, even so with U.S. top defence industries exporter to European countries very relevant productions and technologies. As said, no monopolistic strategies are still available in the third millennium.

But as Italian, let me introduce also a not very known but really top standing in these industrial sectors, Leonardo Group⁴³, where three years ago converged top national industries with consolidated tech knowledges and capabilities, together with outstanding human capital and constant attention to innovation, launched in 2017 to compete and grow in market shares and industrial international partnerships . "These factors have led the Italian Group to become one of the top ten players in the world

⁴² <https://www.airbus.com/>

⁴³ <https://www.leonardocompany.com/home>

Aerospace, Defence and Security, with revenues of € 12.2 billion, 85% of which deriving from international markets. A sustainable business approach and a disciplined financial strategy are the main pillars on which we base the creation of value for all of our stakeholders.



The Company is a partner of choice for governments, institutions and Armed Forces, as well as for private customers and entities. The fan of systems and products offered is wide: products and integrated solutions based on cutting-edge technologies with dual-use applications, to strengthen global security; protect people, the territories, infrastructures and information networks; contribute to the sustainable management of the environment, urban spaces and climate. Leonardo ensures that customers to obtaining the most value from offered systems through innovative support and training services. “Air, land, sea, space and cyberspace: wherever defence and security are needed Leonardo have effective solutions for requirements through a complete and integrated offer in strategic sectors such as helicopters, aeronautics, unmanned systems, defence and security electronics, defence systems and satellite systems and services”. The convergence into value chains⁴⁴ (by the way, the main focus of our Conference here in Stockholm) of the most important industrial groups supplying products and equipment both for wide civil output and specific industrial chain and for the defence sectors, moreover, is very supportive in the highest international relations because involving all the main EU countries.

Their most active industrial groups in the defence sector by the way had resulted in many successful outcomes and some few failures. Of course, it was emerging - in the years coming close to the present dual high-tech extraordinary jump ahead, both in civil and military products - some recent frictional approaches between US and EU⁴⁵ on military industry and defence dual technologies.

⁴⁴ <https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/industry-global-value-chains-connectivity-and-regional-smart-specialisation-europe-overview>

⁴⁵ <https://www.iss.europa.eu/sites/default/files/EUISSFiles/7%20US-EU%20defence%20industries.pdf>

To talk of a new industrial revolution might sound pleonastic but in fact we really move in a new industrial and connected services territory never before discovered.

The convergence of the most important industrial groups in the supply of products and equipment both for wide civil output and specific industrial chain and line for the defence sectors, moreover, is very supportive in the highest international relations because involving all the main EU countries. Their most active industrial groups in the defence sector by the way had resulted in many successful outcomes and some few failures. Of course, it was emerging - in the years coming close to the present high-tech extraordinary jump ahead, both in civil and military products - some recent frictional approaches between US and EU⁴⁶ on military industry and defence dual technologies. EU had been accustomed since in the past. Joint ventures to the defence industries sharp competition sharing production parts and crucial sophisticated technologies, both in the frame of NATO⁴⁷ allies, U.S. and Canada in highest roles but as well with other global advanced industrial partners worldwide⁴⁸.

For sure Europe in this moment and looking to future had reached a very advanced dual technologies defence industrial player competitiveness goal. As well supply chain successful examples I had chosen to bring to your attention, to avoid our Singapore Economic Review 2019 would miss these relevant dimensions of the international industrial value chains. EU and Asia security cooperation is in fact indispensable to pilot in safe way the international relations worldwide.

This paper had been closed on August 20, 2019

⁴⁶ <https://www.iss.europa.eu/sites/default/files/EUISSFiles/7%20US-EU%20defence%20industries.pdf>

⁴⁷ https://www.nato.int/nato_static_fl2014/assets/pdf/pdf_2019_06/20190625_PR2019-069-EN.pdf

⁴⁸ ISS_Eva_Pejsova_EU and Asia security cooperation, Paris 2019 - https://www.iss.europa.eu/search-view?search_text=Eva+Pejsova+EU+and+Asia+security+cooperation

ANNEX ^{*49} slides from Report Accenture: Harness the Engine of Innovation, Report 2019

FIVE TECHNOLOGY TRENDS RESHAPING AEROSPACE AND DEFENSE

This year's Accenture Technology Vision for the aerospace and defense industry highlights five emerging trends that will have a decisive impact on the entire value chain, from aircraft design to passenger or pilot experience. In each trend, digital saturation is raising expectations, abilities and risk across industries, as well as shaping how businesses are seeking new ways to differentiate themselves as the world moves toward the post-digital era.

TREND 1	<h2>DARQ Power</h2> <p>Understanding the DNA of DARQ</p> <p>The next set of technologies every company will need to master? Distributed ledger technology (DLT), artificial intelligence (AI), extended reality (XR) and quantum computing. In other words, "DARQ" matters.</p> <p>Individually, each of these four technologies represents opportunities for aerospace and defense companies to differentiate their products and services. Collectively, they will open unimagined new pathways into the future. AI already plays a critical role in optimizing processes and influencing strategic decision making. XR, an immersive technology, creates entirely new ways for people to experience and engage with the world around them. Distributed ledgers will expand networks by eliminating the need for trusted third parties. And quantum technology will usher in novel ways to approach and solve the hardest computational problems.</p> <p>84% of aerospace and defense companies are already experimenting with one or more DARQ technologies, expecting them to be key differentiators. Each technology is at a different point on the adoption curve, but the first wave of companies using DARQ technologies to drive differentiation is already here.</p>
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⁴⁹ Accenture, Harness the Engine of Innovation, Report 2019
<https://www.accenture.com/us-en/insights/high-tech/tech-vision-aerospace-defense>

TREND

2

Get to Know Me

Unlock unique customers and unique opportunities

Technology identities are part of an emerging enterprise feedback loop, one that first began to show its potential with the personalization efforts of the digital era. Through digital technologies, aerospace and defense companies gain new, direct touchpoints with customers.

They use the resulting “snapshots” of insight into customer needs and goals to deliver personalized products and services, which, in turn, give them even more insight into their customers.

Now, that technology-driven feedback loop is about to kick into overdrive. As the world moves into the post-digital era, aerospace and defense companies are beginning to build new products and services that shift to individualized experiences, creating a one-to-one relationship with each customer where technology plays the starring and ever-present role.

76% of aerospace and defense business leaders agree that understanding customers’ behaviors around technology will be critical for their organizations to increase customer loyalty. To this end, savvy aerospace and defense businesses are taking their first steps with technology identities to personalize their existing product and service offerings. Leaders can push even further to craft new individualized, experiential business models entirely around the technology identities of their customers.

TREND

3

Human+ Worker

Change the workplace or hinder the workforce

Aerospace and defense companies have not been going through their digital transformations alone. Today’s workers are equipped and empowered by technology, incorporating it to perform existing roles in new ways and to adapt for new roles that did not exist in the pre-digital era. The workforce is becoming “human+”: each individual is empowered by their skillsets and knowledge plus a new, constantly growing set of capabilities made possible through technology.

But as the line between employees and the technology they use blurs, a new divide is emerging. The workforce is evolving at a rapid pace, incorporating new technology-driven abilities and skills to deliver value for the company—while the enterprise itself is still optimized for the workforce of the past. **69% of aerospace and defense executives believe that their employees are more digitally mature than their organization, resulting in a workforce ‘waiting’ for the organization to catch up.**

TREND

4

Secure US to Secure ME

Enterprises are not victims, they're vectors

Today's ecosystem-dependent business world amplifies the impact of cyberattacks. Incidents that cripple one enterprise can grow rapidly and expand to threaten a company's ecosystem, industry and beyond. As aerospace and defense companies work more and more extensively within complex ecosystems, they are simultaneously extending, and absorbing, their ecosystem partners' risks and vulnerabilities. Those risks include the loss of current and future defense contracts as a result of not protecting client information or failing to comply with national cybersecurity regulations.

Threat actors targeting highly sensitive and proprietary data see aerospace and defense ecosystems as an ever-widening attack surface. But most companies still view cybersecurity as strictly an individual effort. Only 40% of aerospace and defense business and IT executives report that they know their ecosystem partners are working diligently, like they are, to be compliant and build security resilience.

To respond to this dichotomy, organizations must include growing ecosystem dependencies and risks as part of their own security posture and make security a cardinal component of how they build, assess, monitor and manage partnerships. Interconnectedness increases companies' exposures to risks. Leading aerospace and defense companies are recognizing that while they already collaborate to deliver best-in-class products, services and experiences, it is high time security joins that effort as well.

TREND

5

MyMarkets

Meet customer's needs at the speed of now

With companies, workforces, consumers and industries now inextricably connected, being digital is no longer enough for an aerospace and defense firm to differentiate itself. But it does give organizations a foothold for their next big opportunity: capturing moments.

With direct digital access to customers and increasingly powerful analytics capabilities, aerospace and defense companies can understand their current and potential markets better than ever before. And with sophisticated backend technology that can reorient the business quickly, they can deliver for those momentary markets faster than ever before. Put those capabilities together and every moment is a chance to deliver a new product or service designed not just for a specific customer, but for their needs at a specific point in time.

81% of aerospace and defense companies agree the integration of customization and real time delivery is the next big wave of competitive advantage.

The workforce is evolving at a rapid pace, incorporating new technology-driven abilities and skills to deliver value for the company—while the enterprise itself is still optimized for the workforce of the past.

THE ANSWER? A NEW KIND OF LIVING BUSINESS

Aerospace and defense companies have been developing digital capabilities for years. Yet the urgency to harness digital to deliver the “moments that matter” across the organization, partners and customers has never been greater.

PATHWAYS TO A LIVING BUSINESS



Easy Birds or Sluggish Bears – Credit Boom or Restriction? Credit cycle – evidence from Central and Eastern Europe

Kamelia Assenova*

Abstract The economies in CEE characterize with common credit cycle. The rise and fall of level of credit depends on both demand and supply factors. For the period 2005 – 2015 it could separate two stages: first – before the crisis in 2008, when raise demand and supply for credit and it led to credit expansion; second – after the crisis in 2008 – demand and supply fell sharply and credit changes in the same direction. During different stages the factors driving the demand and supply for credit are changed deeply. The research uses panel data approach. It has found common tendencies in credit cycle for the countries in CEE. The volume of credit increases during whole period 2005-2015. For the countries in CEE the volume of credit depends on the disposal resources very strong. By the first group of countries researched the volume of overnight deposits influence on credit increase. In this group are Poland, Check Republic and Slovakia. Second group of countries, including Bulgaria, Romania and Hungary, the volume of credit depends on more of time deposits.

Keywords: credit; demand and supply of credit; Central and Eastern Europe

JEL Classification: G2; E5; C3

The countries in Central and Eastern Europe (CEE) have main aim of economic policy to encourage the increasing of aggregate demand, therefore aggregate supply. As it is known, it could be made through private consumption, investments, public spending and net export. All parts depend on in different degree the volume of credit. In framework ISLM the level of investments and of net exports depends on the interest rate of lending.

The economies in CEE characterize with common tendencies. During the period 2005-2007 the economic growth in the region was based on domestic demand, especially consumer expenditure (see you the book: “Interest rate and Economic growth” (2013) of same author). The part of it was stimulating from credit growth. On

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other side, the negative results by this growth connect with the deficit of current account and appreciation of local currency (for the countries with floating currency rates). After the financial crisis in 2008, the conditions in the economies of the region deeply changed. For this period the economies characterizes with:

- in the monetary area – low level in the reserves, ineffective banking sector supervision, large volume of lending and raising of bad loans. The situation like it leads to current account deficit;
- in financial area – the revenue from consumer tax increases and the same time depends on the economic activities corporate tax collected is lower than pre - crisis period. The public spending contracted. The budget deficit regularly keeps on low level from over 6 % of GDP in 2009 to 3 % in 2013. The government debt in the region in the period 2000-2007 reduces from 55 % of GDP in 2000 to 50 % in 2007. After the crisis in the region CEE stay out following problems to decide:
- fiscal consolidation between revenue and expenditure;
- independent banking sector supervision;
- reform in the pension system due to the aging of population;
- reduce skills mismatches on the labour market.

Due to common tendencies in economies, countries in CEE characterize with common credit cycle. The rise and fall of level of credit depends on both demand and supply factors. For the period 2005 – 2015 it could separate two stages:

- First – before the crisis in 2008 when raise demand and supply for credit and led to credit expansion;
- Second – after the crisis in 2008 – demand and supply fell sharply and credit changes in the same direction.

During different stages the factors driving the demand and supply for credit are changed deeply.

On the first stage the demand depends on:

- Strong economic growth in all countries in the region;
- Increasing of income nevertheless that it is not reached the average such in EU;
- Low level of interest of deposits;
- According the households – increasing the private consumption due to higher level of income;
- According the households – rising of house process;
- According nonfinancial institutions (business) – the raising of investments due to the economic growth and capitalization of profit from the economic agents;
- Pro – cycling fiscal policy adds to aggregate demand in the economy;
- The markets are expanded and the increased export influences on used credit resources.

On the first stage the increasing of the supply due to:

- The economic growth raises the saving;
- High external flows of capital came to countries in CEE from other countries in EU;
- Cheap funding for the banks;

- Common tendency for households and business - low level of debt permitting them to go to new credit without loss the positive effects of financial leverage;
- Low level of debt reduced the risk in the economy and encourage the bank to offer new credits;
- Profit opportunities improve the incoming flows in the business and credibility of companies.

On the second stage after the crisis in 2008 factors influence on the demand and decline the borrowing are changed:

- According households – lower level of income and worsened credibility of the economic agents;
- House prices dropped;
- According the business – the projects have already low rate of return;
- No optimistic perspective for economic activities in short term and uncertainly in the economy;
- The export decreased and not need additional lending;
- Worsened credibility of firms;
- Restrictive fiscal policy and declining of public spending.

On the second stage the change in the supply led to very sharp decline of borrowing due to:

- Increasing of global risk;
- Higher price of bank funding;
- Low rate of saving of households and of nonfinancial institutions (business) compared with pre-crisis period. The saving is not stopping because economic agent hedge they self for uncertainly in the economy;
- Low margin between an interest of deposits and credits decrease bank profit;
- Reversal movement of funds to the parent banks;
- Uncertain economic perspective.

The paper is organized in following section: model, macroeconomic and bank variables, limitation of research, case – studies analyzes, conclusion.

1. Model

Many authors research the dynamic of credit growth in transition and emerging market countries. On early stage the literature focused on the role of privatization and foreign banks entry on the banking system (Claessens and other, 2001; Bonin and other, 2005; Haas and Levyveld, 2006, Havrylchyk and Jurzyk, 2010) or allocation of resources (Aydin, 2008, Degryse and other, 2009), focused on positive role of foreign bank performance.

On the next stage, the literature analyzed extend fast credit growth that is useful for the economic growth in the region and credit boom (Cottarelli and other, 2003; Hilbers and other, 2005; Enoch and Otker – Robe, 2007; Eichengreen and Steiner, 2008). The role of international capital flows and parent bank funding has also presented by Bakker and Gulde, 2012; Mendoza and Terrones, 2012, and IMF, 2013. The Role of credit demand

examinants for the countries in CEE by Brown and other, 2012. Due to the limited number of observations caused by the rather small sample size (six countries) and the short period of investigation (monthly data for ten years), the research uses a panel data approach in order to enhance the quality and quantity of data (Gujarati, 2003).

The research investigates dependence of volume and interest of credit from disposal resources. In the same time, it look for the reason for the change in business credit – disposal resources or the rate of return of projects financed with credit.

$$CLOANS = a + b CDEP + e$$

(1)

where

CLOANS – country loans total, monthly

CDEP – country deposits total in banking system, monthly

$$CLOANS = a + b CONDEP + c CTDEP + e \quad (2)$$

where

CLOANS – country loans total, monthly

CONDEP – country overnight deposits, monthly

CTDEP – country time deposits, monthly

$$CLBusiness = a + b CDEP + e \quad (3)$$

where

CLBusiness – country business loans, monthly

CDEP – country deposits total in banking system, monthly

The variables are:

- Lending total , for households, for non- financial institutions (for business)
- Deposits total, by different subjects - for households, for non- financial institutions (for business), by different maturity, because different required reserve ratio. Due to lack of unified monetary policy is impossible to calculate the impact of deposit multiplication on the amount of deposits in every country.

The research observes the period 2005 – 2015 for 6 countries in CEE: Poland, Hungary, Check Republic, Slovakia, Romania and Bulgaria.

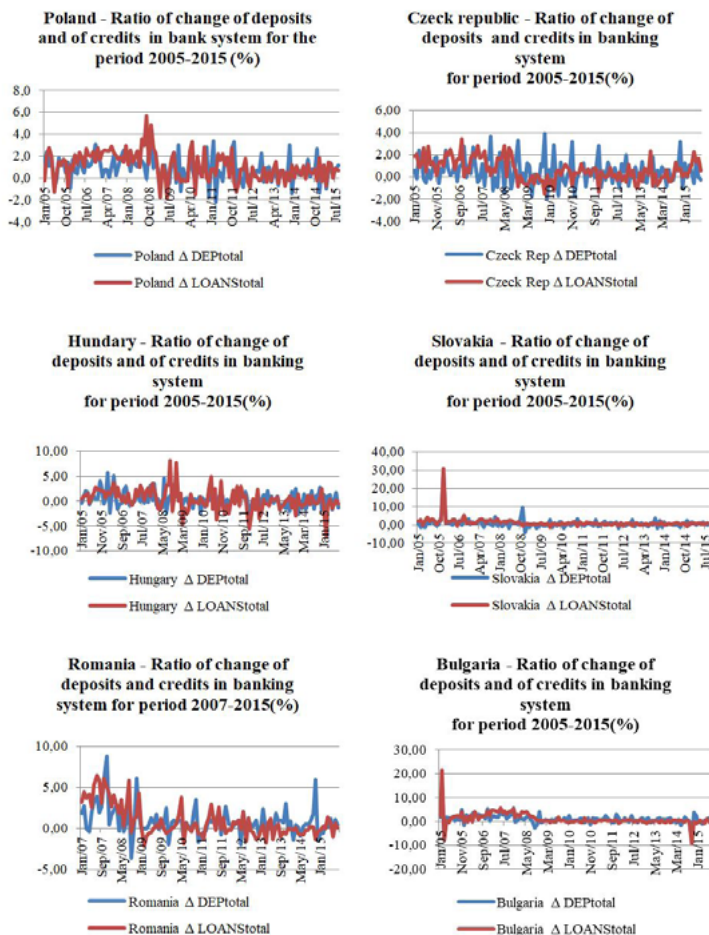
Limitations of the research are:

- Because the different way to be made the data by national statistics – with or not accumulation, monthly, quarterly or annually, chronologically presented – the different variables are recalculated to be mathematically compatible;
- By the testing for a region as whole, the variables are recalculated in EURO for all countries;
- It is very difficult to distinguish the impact of deposits on the changes of credit or such are the result from automatic adjustment and due to it, the research suggests as a reason for changes only the impact of independent variables.

2. Data analyses

The research of data has found the main factor of supply by lending in the region appears the disposal resources in the banking system. Main part of them comes from accepted deposits. The disposal resources influence on the credit interest. There are some exceptions: for Hungary – in September 2008 credit rise with 8.8% by 1.02% increasing of deposits. It dues to debt crises in this country; for Slovakia – in December 2005 when lending increases with 30.97 compared with November same year. It is the reaction of the business after the accession to EU and expanding of the market; For Bulgaria – it found more volatility of amount of credit. In February 2005 the credit increases with 21.37% compared with month before, next month decreases with minus 7.92 %. The administrative measures taken from Bulgarian National bank reduce the supply from the banks on market and cost deeply changes of volume of credits. Next strong change for this country is in October 2014 with minus 9.52% after the collapse of one most important bank in banking system. The changes of deposits and credit are graphically below:

Graph 1. Ratio of change of deposits and credits in banking system in CEE



Sources: National statistics, Eurostat and own calculations

3. Results. Country Case Studies

Credit boom in every country depends on:

- Disposal resources;
- Price of credit (interest rate of credit);
- Propensity of lending of the bank;
- Stage of economy;
- Expectations of business;
- Income of householders;
- Risk – it is common factor for banks and lenders.

It was found common tendencies in credit cycle for the countries in CEE. The volume of credit changes with different rate during the first and second stage of period 2005-2015. There are some peaks during the time of crises. It dues to unequal inflow and outflow for business and households and they finance the deficit with credit.

The Enter of foreign banks to the market, as well as the strengthening of Commercial banks audit in the sector, led to a return the confidence of the public in banks, and hence an increasing of deposits. On the other hand, improved economic conditions predetermined the growth of foreign cash flows, mainly coming from foreign banks to region. All factors have led to strong need to find ways to invest accumulated funds to bring income.

The consequences of the growth of the deposit base require searching for ways of investing the accumulated funds. Following tendencies have observed: commercial banks investment in foreign assets on the local market; the needs of business for long-term capital to upgrade technology and household to buy goods for long-term usage reflect the loan extension after the crises; the increased share of long-term loans, which is explained by the increased confidence between creditors and borrowers and the reduction of risk; lending in services is highest compared with all other sectors of economy.

For the countries in CEE the volume of credit depends on the disposal resources very strong. The coefficients of correlation the total lending/total deposits have the volatility from 0.991 for Poland and Slovakia up to 0.842 for Romania and 0.815 for Hungary. An average for the region is 0.914, confirming the strong correlation between volume of credit and disposal resources. For Hungary it could accept very critical, because measurement of reliability. Disposal resources increase in the first period of credit cycle before the crises and after slowly recovery between 2011 and 2015.

By the first group of countries researched the volume of overnight deposits influence on credit increase. In this group are Poland, Check Republic and Slovakia. Second group of countries, including Bulgaria, Romania and Hungary, the volume of credit depends on more of time deposits. Especially for Bulgaria overnight deposits have negative correlation with credit. It shows bad transformation of maturity from the bank management. Due to it is very important the structure of total amount of accumulated deposits and share of overnight and time deposits. Because the short horizon of economic agents in CEE, the banks accepted more overnight deposits.

Poland and Slovakia show common tendency. Two types of deposits accumulated impact equal on the volume of credit.

More important part of credit – business loans are function of deposits in all countries in the region. They are from 0.976 for Poland up to 0.641 for Hungary, average for the region – 0.901. In last years Hungary is different case. Because the high level of government debt, the demand for credit in the country increased, the price of loans became higher and volume of credit dropped.

Non-performing loans influence on the disposal resources. They have not small part of loans in the region and they have strongest negative impact on the bank profit, their future disposal resources and economic growth.

The credit contributes to economic development in CEE. From other site, depends on different stage of economic cycle, business and household need different volume of credit. Financial market is not good developed and bank credit is main source for financing. Therefore, credit cycle influences on economic growth in the region. In CEE countries credit depends mainly from disposal resources and encouragement of accumulation and saving in the region are needed.

Conclusion

The economies in CEE characterize with common credit cycle. The rise and fall of level of credit depends on both demand and supply factors. For the period 2005 – 2015 it could separate two stages: first – before the crisis in 2008, when raise demand and supply for credit led to credit expansion; second – after the crisis in 2008 – demand and supply fell sharply and credit changes in the same direction. During different stages the factors driving the demand and supply for credit are changed deeply. It was found common tendencies in credit cycle for the countries in CEE. For the countries in CEE the volume of credit depends on the disposal resources very strong. Credit cycle influences on economic growth in the region. Because for CEE credit depends mainly from disposal resources, the increasing of accumulation and saving in the region are needed.

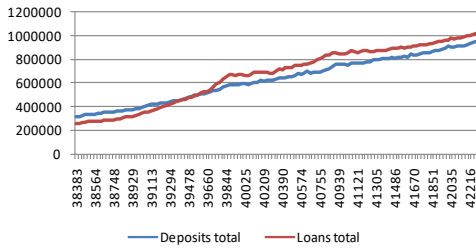
References

- National Statistic offices – Poland, Czech Republic, Hungary, Slovakia, Romania, Bulgaria, 2005-2015, www.nsi.bg, www.czso.cz, www.ksh.hu, www.stat.gov.pl, www.statistics.sk
- Central banks – Bulgaria, Czech republic, Romania, Slovakia for period 2005 -2015, www.bnb.bg, www.cnb.cz, www.bnro.ro, www.nbs.sk
- Assenova, Kamelia, 2015, Credit Cycle in Bulgaria – impact of demand and supply, Economics and Innovation, Scientific paper of New Bulgarian University, Sofia
- Assenova, Kamelia, 2018, Credit cycle in Bulgaria, Journal Transitional studies Review, Vol. 25,N 1, pp 13-24
- Assenova, Kamelia, 2013, Interest rate and Economic Growth, Publishing house ” Lap Lambert Academic publishing, Saarbrucken, Germany

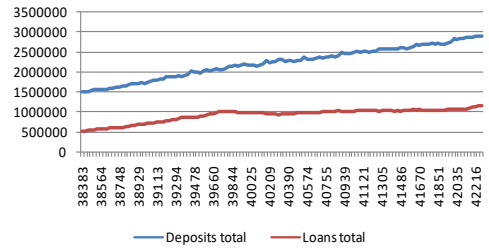
- Aydin Burcu, 2008, Banking Structure and Credit Growth in Central and Eastern Europe Countries, IMF Working Paper 08/215, Washington D.C., IMF
- Bakker, Bas, B. and Anne – Marie Gulde, 2010, The credit Boom in the EU New Member States: Bad Luck or bad Policies?, IMF Working Paper 10/130, Washington D.C., IMF
- Bonin, John, Iftekhhar Hasan and Paul Wachtel, 2005, Bank Performance, Efficiency and Ownership in Transition Countries, Journal of Banking and Finance, Vol.29, pp 31-53
- Breuss, Fritz, 2003, Balassa-Samuelson Effects in the CEEC: Are they Obstacles for Joining the EMU?, May 2003.
- Brown, Martin, Steven Ongena, Alexander Popov and Pinar Yesin, 2012, Who need Credit and Who Gets Credit in Eastern Europe, ECB Working Paper N 1421
- Claessens, Stijn, Asli Demirguc – Kunt and Harry Huizinga, 2001, How does Foreign Entry Affect Domestic Banking Markets?, Journal of Banking and Finance, Vol. 25, pp 891 – 911
- Cottarelli, Carlo Giovanni Dell Ariccia and Ivanna Vladkova – Hollar, 2003, Early Birds, Late risers and Sleeping Beauties: Bank Credit Growth to Private Sector in Central and Eastern Europe and the Balkans, IMF Working Paper 03/213, Washington D.C., IMF
- De Haas, Ralph and Iman Van Lelyveld, 2006, Foreign Banks and Credit Stability in Central and eastern Europe: A Panel data Analysis, Journal of Banking and Finance, VOL. 30, pp 1927 -1952
- Degryse, Hans , Olena Havrylchyk, Emilia Jurzuk and Sylwester Kozak, 2009, Foreign Bank Entry and Credit Allocation in Emerging Markets, IMF Working Paper 09/270, Washington D.C., IMF
- Gujarati, D.N., 2003. Basic Econometrics. 4th edition, McGraw Hill, New York
- Eichengreen, Barry and Katharina Steiner, 2008, Is Poland the Risk of a Boom – and Bust Cycle in the Run – Up to Euro Adoption?, NBER, Working Paper, N 14438
- Enoch, Charles and Inci Otker – Robe, 2007, Rapid Credit Growth in Central and Eastern Europe: Endless Boom or Early Warning?, IMF, Palgrave Macmillan, April
- Havrylchyk, Olena and Emilia Jurzyk, 2010, Inherited or Earned@ performance of Foreign Banks in Central and eastern Europe, IMF Working Paper 10/4, Washington D.C., IMF
- International Monetary Fund, 2013, Financing Future Growth: the Evolving Role of Banking System in CESEE, Regional Economic Issues, April 2013, Washington D.C., IMF
- Mendoza, Enrique and Marco Terrones, 2012, An Anatomy of Credit Boom and Their Demise, NBER, Working Paper N 18379
- Temple, J., 1999. The New Growth Evidence. Journal of Economic Literature 37 (1), 112- 156.

Appendix 1 – Amount of deposits and credits in banking system in CEE

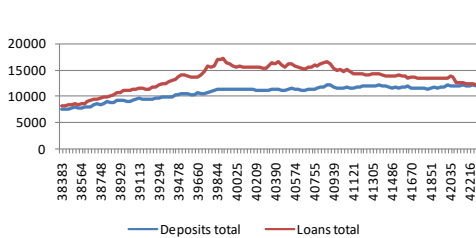
Poland - Deposits and Loans for period 2005 - 2015
 (mln PLN)



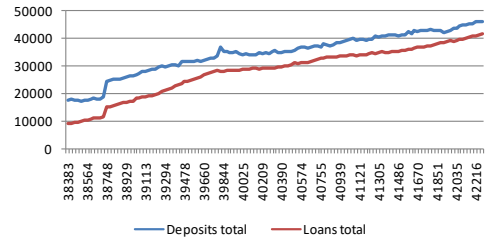
Czech Republic - Deposits and Loans
 for period 2005 - 2015 (mln CZK)



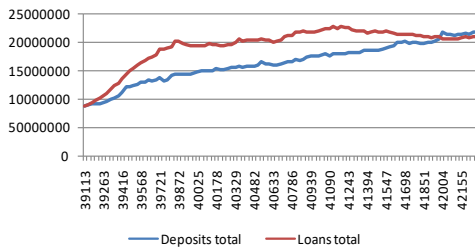
Hungary - Deposits and Loans for period 2005-2015
 (bln HUF)



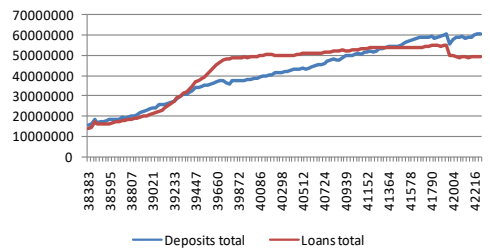
Slovakia - Deposits and Loans for period 2005 -2015
 (mln EUR)



Romania - Deposits and Loans for period 2007 - 2015
 (mln RON)



Bulgaria - Deposits and Loans for period 2005 - 2015
 (mln BGN)



Sources: National statistics, Eurostat

The Effect of Foreign Ownership on Corporate Debt Maturity: Evidence from the Companies Listed in Amman Stock Exchange

Dima Waleed Hanna Alrabadi* • Asmaa Mohammad Alandali**

Abstract This study investigates the effect of foreign ownership on corporate debt maturity of the industrial companies listed in Amman Stock Exchange (ASE). Annual data of 42 firms is used over the period (2010-2017) and panel data regression analysis is applied. Moreover, mean and median equality tests are utilized to investigate whether the debt maturity differs according to different foreign ownership percentages. The study documents an average debt maturity of Jordanian industrial companies listed in ASE of 1.6 years which indicates that these companies use short-term debt more than using long-term debt. The average foreign ownership percentage of sample companies is 20%. Results show that there is a statistically significant positive effect of foreign ownership on debt maturity for Jordanian industrial companies listed in ASE. Also, there are statistically significant differences in debt maturity of Jordanian industrial companies categorized by foreign ownership.

Keywords: Debt maturity; Foreign ownership; Industrial companies; ASE

JEL Classification: G11; G12; G15; C32; F30

1. Introduction

In recent years, the importance of foreign institutional investors around the world has drawn considerable attention from researchers. Especially, foreign institutional investors as share holders of the invested firms affect the quality of corporate governance. For example, they promote better governance practice, and themselves function as disciplinary mechanisms (e.g., Ferreira and Matos, 2008; Ferreira *et al.*, 2010; Aggarwal *et al.*, 2011).

Despite the increasing presence of foreign investors around the world, the evaluation of foreign investors as shareholders in corporate bond markets has so far remained unclear. Existing theories on foreign investors and debt maturity structure propose different views on the relation between foreign ownership and maturity

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structure of corporate public debt. On the one hand, as Myers (1977) argues, conflict of interests between shareholders and bondholders over the firm's future investment opportunities is severe in the issue of risky debt (underinvestment problem). Especially, firm value that derives from investment opportunities is sensitive to the degree of managerial discretion. However, when foreign investors are active monitors over the managers on the behalf of creditors, creditors benefit from the monitoring activities through a decrease in managerial discretion. Overall, when monitoring activities by foreign investors discipline managers, thereby reducing agency problems of debt, firms could issue public debt with longer maturities.

In addition to the arguments above, in traditional agency theory, it is well recognized that managers have incentive to entrench themselves to enjoy the private benefits of control. This includes job retention. Such entrenchment activities are often determinately to creditors. When perceiving such manager's incentives, creditors require the managers to be under monitoring by shortening maturity of debt. If outside shareholders monitor the managers, thereby leading to decline in managerial discretion, creditors have less incentive to oversee the managers by using short-term debt. This, managerial discipline by outside shareholders allows the firms to issue debt with longer-maturity (Jensen and Meckling, 1976).

On the other hand, Foreign investors exert influential power over the managers to increase risk-taking behavior that create higher firm value (Nguyen, 2012). If bondholders are concerned about the foreign investor's incentive to increase risk, they could reduce the incentive by providing short-term debt to the firms. Thus, firms with higher equity ownership by foreign investors issue bond with short-term maturity (Tanaka, 2014).

The operating firms in Jordan are small comparative with firms operating in developed markets. Small firms are confronted to large information and agency problems which motivate it to use short-term debt to decrease costs that are associated with these problems. However, most debt in these firms is sourced from banks that employ multiple screening and monitoring technologies alongside debt maturity to resolve the agency and information problems. Jordanian banks make sure to use of collateral which may mitigate the impact of information asymmetry and agency conflicts on debt maturity. In other words, the use of collateralized bank debt reduces the agency and information costs and causes fewer clear predictions about the impact of agency and information costs on debt maturity. In addition, Jordanian firms employ small leverage in comparison to developed countries. Firms with low leverage have less debt agency costs and therefore, have less incentive to use other control mechanisms including debt maturity. In addition, firms operating in Jordanian market are characterized by concentrated ownership. A disciplinary pressure is exerting by short-term debt on controlling shareholders of these firms. Hence, to avoid bank monitoring, these firms could choose long-term debt maturity. The cost of short-term debt is substantially lower than that of long-term both on price and non-price terms and hence firms with concentrated ownership may find short-term debt more preferable. Thus, the key question of this study is: How foreign ownership affects corporate debt

maturity in industrial Jordanian companies over the period (2010-2017)? This study is one of the few ones in Jordan that investigates the determinants of debt maturity and has focused on the effect of foreign ownership on it. A huge amount of research is conducted on the determinants of capital structure in Jordan but few ones have tackled this topic. Determining debt maturity is very critical to firms as it affects agency costs, bankruptcy costs and information asymmetry costs, thus it indirectly affects firm value. The remainder of this study is organized as follows: Section 2 reviews the literature, Section 3 describes data and methodology, Section 4 presents the results of analysis and Section 5 concludes.

2. Literature Review

Modigliani and Miller (1958) argued that in the absence of a perfect market and in the presence of taxes and flotation costs, the value of the firm would be maximized by using as much debt as possible. Since then an extensive body of theoretical as well as empirical research has identified a number of factors that were believed to influence the capital structure and debt maturity. These factors include “the maturity matching principles” growth opportunities, asset structure, size, age, liquidity, profitability and ownership structure.

Ozkan (2002) find that UK firms match the maturity of their debt to that of their assets. Guney and Ozkan (2005) observe a significant negative effect of managerial ownership on debt maturity for UK firms. Schmukler and Vesperoni (2006) examine the effect of financial globalization on debt structure in emerging economies. They find that by accessing international markets, firms increase their long-term debt and extend their debt maturity. In contrast, with financial liberalization, long-term debt decreases and the maturity structure shifts to the short term for the average firm. Arslan and Karan (2006) investigate the emerging market of Turkey and find that both concentrated ownership structure and presence of a large shareholder is directly but moderately related to corporate debt maturity. They argue that in spite of having a controlling large shareholder or a concentrated ownership structure, firms with growth opportunities still prefer shorter maturities in order to solve the underinvestment problems. Authors also document that it is important for Turkish firms to match maturity of their assets with maturity of their liabilities.

Choi and Choi (2013) predicts that an increase in the foreign ownership is likely to lead to a high level of alignment of interests between managers and external shareholders thereby affecting the debt maturity decisions. Consistent with the prediction, they find a significant positive relation between foreign ownership and the proportion of short-term debt. The finding suggests that foreign ownership is an important determinant of the debt maturity structure.

On the other hand, Hajiha and Akhlaghi (2011) examine the impact of firm ownership structure on the firm debt maturity, the sample of the study consists of the context of (96) Iranian manufacturing firms listed in Tehran Stock Exchange for the period (2002-2009) as an emerging market. Using multivariate regression analysis in a panel data, the results indicate that there is a significant positive relationship between

managerial ownership, institutional shareholders and debt maturity structure. Lee and Chang (2013) show that there is an inverted U-shaped non-linear relationship between control rights and the duration of liabilities in the control structure of ultimate controlling shareholders in Taiwan.

Ruan *et al.* (2014) inspect whether the different ownership control types impact the firms' preference and accessibility to either long- or short-term debts in China. They find that compared to privately controlled firms, state-owned enterprises had greater access to long-term debt and used less short-term debt.

Tanaka (2014) explores the relationship between foreign investors and the maturity structure of corporate public debt in Japan over the period (2005-2009). Results reveal that firms with higher foreign institutional ownership enjoy longer maturity of public debt. Firms with higher foreign institutional ownership also exhibit higher firm performance. These results indicate that bondholders benefit from managerial discipline by foreign investors, thereby allowing for issuing debt with longer maturity. In addition, firms with higher foreign institutional ownership experience lower cost of public debt financing. Bamiatzi *et al.* (2017) show that foreign acquisition reduces both short and long-term debt levels of the target companies in Italy and Spain.

In the Jordanian context, Tayem (2018) investigates the determinants of debt maturity structure of nonfinancial firms listed on the ASE over the period (2005-2013) and show that larger firms with longer asset maturity have longer term debt. Also, Firm age is negatively significantly related to debt maturity. The study concludes that firm with high growth opportunities and more volatility do not have significantly different maturity structure in comparison to firms with low growth opportunities and less volatile earning. However, there is no impact of ownership of the largest shareholder on debt maturity.

3. Data and Methodology

3.1 Population and Sample

The population of the study consists of all industrial companies listed in Amman stock exchange during the period (2010-2017). The sample of the study is selected according to the companies that have full set of data which consists of (42) firms, we use annual observations for all the variables of the study over the period (2010-2017).

3.2 Variables of the Study

Dependent Variable

The dependent variable of the study is the debt maturity (MATURITY D) of the industrial companies listed in ASE over the period (2010-2017) which is calculated as follows, Tanaka (2014):

$$\text{MATURITY D} = (\text{Current liabilities} / \text{Total liabilities} * \text{Maturity of current liabilities}) + (\text{Non-current liabilities} / \text{total liabilities} * \text{Maturity of non-current liabilities}) \quad (1)$$

Independent variable

The major independent variable of the study is the foreign ownership (FOREIGN) of the industrial companies listed in ASE over the period (2010-2017). The percentage is provided by Amman stock exchange.

Control variables

The following control variables are used in the model of the study (Tanaka, 2014):

1. Debt size

Firms with higher liquidity risk have an incentive to avoid the threat of inefficient liquidations by issuing debt with longer maturities (Guedes and Opler, 1996). The debt size (DR) in this study is measured by debt ratio as follows:

$$DR = \frac{\text{Total Liabilities}}{\text{Total Assets}} \quad (2)$$

2. Tobin's Q

Particularly, firms with high growth opportunity options in the investment are more susceptible to face the conflict of interests between bondholders and shareholders. by issuing shorter maturity of debt that problem could be reduced. Thus, firms with more growth opportunity tend to issue shorter-maturity debt. Growth opportunity is measured as Tobin's Q (Tobin) as follows:

$$Tobin = \frac{\text{Number of Shares} * \text{Stock Price}}{\text{Total Assets}} \quad (3)$$

3. Firm Size

Larger firms unlikely experience severe agency conflicts between shareholders and bondholders, and have less incentive to use short-term debt to reduce the conflicts. Thus, larger firms are more likely to issue long-term debt (Stohs and Mauer, 1996). In addition, larger firms are familiar with the market, and asymmetric information problems are less serious. Larger firms are less concerned about the information cost associated with long-term debt, are more likely to issue long-term debt (Flannery, 1986). In this study firm size (Size) is measured by the natural logarithm of total assets.

4. Firm Age

older firms are more likely to issue long-term debt. The firm age (Age) in this study is measured as the natural logarithm of years elapsed since establishment, Tanaka (2014).

5. Term Structure

Firms issuing debt with longer maturity in the positive slope of the term structure due to interest tax shields in order to increase firm value. Conversely, in the negative slope of term structure, firm value decreases for firms issuing debt with shorter maturity (Brick and Ravid, 1985). The term structure (Interest) is calculated by the interest rates on commercial loans.

6. Effective Tax Rate

Kane *et al.* (1985) argue that firms extend the debt maturity when the tax advantage of debt decreases. This suggests a negative association between debt maturity and effective tax rate. So, to measure the effective tax rate (Tax) the study uses the follows:

$$Tax = \frac{Corporate\ Income\ Tax}{Pretax\ Income} \quad (4)$$

7. Abnormal Earnings

Firm insiders are better known about firm quality than outside investors. Insiders of high-quality firms can signal their private information by issuing short-term debt because the cost of rolling over the short-term debt is higher, and is difficult to be afforded by low quality firms (Flannery, 1986). This study used abnormal earnings in order to measure insider's information to test signaling model. The abnormal earnings in this study measured as follows:

$$ABNORMAL = \frac{Next\ Year's\ Earnings - This\ Year\ Earnings}{Stock\ Price\ in\ this\ Year} \quad (5)$$

Earning means earning per share (EPS).

8. Asset Maturity

Firms can match the maturity of its liabilities to that of its assets, thereby reducing Myers's (1977) underinvestment problems. Thus, firms which have more long-term assets obviously are more likely to issue debt with longer maturities.

The asset maturity is computed as follows:

$$MATURITY\ A = \left(\frac{Fixed\ Assets}{Depreciation\ Allowance} * \frac{Fixed\ Assets}{Total\ Assets} \right) + \left(\frac{Current\ Assets}{Cost\ of\ Good\ Sold} * \frac{Current\ Assets}{Total\ Assets} \right) \quad (6)$$

3.3 The Model of the Study

To answer the question of the study, we estimate the following regression model (Tanaka, 2010):

$$MaturityD_{it} = \alpha_0 + \beta_1 Foreign_{it} + \beta_2 DR_{it} + \beta_3 Tobin_{it} + \beta_4 Size_{it} + \beta_5 Age_{it} + \beta_6 Interest_{it} + \beta_7 Tax_{it} + \beta_8 Abnormal_{it} + \beta_9 Maturity\ A_{it} + \epsilon_{it}$$

Where:

- Maturity D_{it} : is the debt maturity of company i in year t.
- $Foreign_{it}$: is the foreign ownership of company i in year t.
- DR_{it} : is the debt ratio of company i in year t.
- Tobin's Q_{it} : is the growth opportunity of company i in year t.
- $Size_{it}$: is the size of company i in year t.
- Age_{it} : is the age of company i in year t.
- $Intres_{it}$: is the term structure of company i in year t.
- Tax_{it} : is the effective tax rate of company i in year t.

- $Abnormal_{it}$: is the abnormal earnings of company i in year t .
- Maturity A_{it} : is the asset maturity of company i in year t .
- $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8$ and β_9 : the coefficients of model.
- ε_{it} : is the random error term.

4. Results of Analysis

4.1 Descriptive statistics of the variables of the study

Table (1) reports the descriptive statistics of the variables of the study, statistics show that debt maturity (Maturity D) has a mean value of (1.6) years for sample companies, a maximum value of (11.3) years, a minimum value of (1) year and the standard deviation of the debt maturity is (1.2934). The foreign ownership (Foreign) has a mean value of 20% of sample companies, a maximum value of 98%, a minimum value of 0% and a standard deviation of (0.2378).

Table 1. Descriptive statistics of the study variable

	MATURITYD	DR	TOBIN	SIZE	AGE	INTEREST
Mean	1.5558	0.3439	0.8447	16.7203	3.2338	0.0865
Median	1.0000	0.3129	0.5166	16.6423	3.2189	0.0867
Maximum	11.3402	0.9412	20.4443	19.3709	4.1897	0.0903
Minimum	1.0000	0.0005	0.0291	12.9023	1.0986	0.0783
Std. Dev.	1.2934	0.2206	1.5722	1.1669	0.5960	0.0040

	TAX	ABNORMAL	MATURITYA	FOREIGN
Mean	0.0561	0.0278	4.9184	0.1971
Median	0.0191	0.0040	1.2643	0.1001
Maximum	0.7197	2.0843	228.7018	0.9880
Minimum	0.0000	-0.9483	0.3642	0.0001
Std. Dev.	0.0863	0.2407	18.9721	0.2378

This table reports the descriptive statistics of the variables of the study for industrial companies listed in ASE over the period (2010-2017). MATURITYD denotes debt maturity, DR denotes debt size, TOBIN denotes Tobin's Q, INTREST denotes term structure, TAX denotes effective tax rate, ABNORMAL denotes abnormal earnings, MATURITYA denotes assets maturity, FOREIGN denotes foreign ownership, Size denotes firm size, Age denotes firm age.

4.2 Correlation Matrix

Table (2) reports the correlation coefficients between the variables of the study. Overall, the explanatory variables should not be highly correlated in order to avoid any multicollinearity problem when estimating the model of the study (Gujarati,2004). The correlation coefficient values between all factors are relatively low. Results show that all the correlation values are less than 70% which indicates no multicollinearity problem.

Table 2. Correlation coefficients between the explanatory variables

	DR	TOBIN	SIZE	AGE	INTEREST	TAX	ABNORMAL	MATURITYA	FOREIGN
DR	1.0000	0.0255	0.2345	-0.0266	-0.0006	-0.1143	0.1483	-0.2030	-0.1076
TOBIN	0.0255	1.0000	-0.2060	0.0558	0.0426	0.0913	-0.0595	0.0534	0.0443
SIZE	0.2345	-0.2060	1.0000	-0.2316	-0.0285	-0.0544	-0.0093	0.0298	0.1276
AGE	-0.0266	0.0558	-0.2316	1.0000	-0.1168	0.1495	0.0393	-0.0669	0.0858
INTEREST	-0.0006	0.0426	-0.0285	-0.1168	1.0000	0.0387	0.0130	0.0395	-0.0060
TAX	-0.1143	0.0913	-0.0544	0.1495	0.0387	1.0000	-0.1187	-0.0785	0.1810
ABNORMAL	0.1483	-0.0595	-0.0093	0.0393	0.0130	-0.1187	1.0000	-0.0103	-0.0088
MATURITYA	-0.2030	0.0534	0.0298	-0.0669	0.0395	-0.0785	-0.0103	1.0000	-0.1212
FOREIGN	-0.1076	0.0443	0.1276	0.0858	-0.0060	0.1810	-0.0088	-0.1212	1.0000

This table reports the correlation coefficients between the explanatory variables of the study for industrial companies listed in ASE over the period (2010-2017). DR denotes debt size, TOBIN denotes Tobin's Q, INTREST denotes term structure, TAX denotes effective tax rate, ABNORMAL denotes abnormal earnings, MATURITYA denotes assets maturity, FOREIGN denotes foreign ownership, Size denotes firm size, Age denotes firm age.

4.3 Results of Estimation

Table (3) reports the estimation results of the model of the study. Results show that the langrage multiplier (LM) test is statistically significant while Hausman is not statistically significant, this is why we use random effect model for estimation. Results show that there is a statistically significant positive effect of foreign ownership on debt maturity for sample companies, the coefficient of foreign ownership is 60%. This result is consistent with the results of Hajiha and Akhlaghi, (2011) and Tanaka, (2014). There is a statistically significant positive effect of debt size on debt maturity for sample companies; the coefficient of debt size is 1.2. There is no statistically significant effect of firm size on debt maturity for sample companies. There is a statistically significant positive effect of firm age on debt maturity for sample companies; the coefficient of firm age is 29%. There is a statistically significant negative effect of term structure on debt maturity for sample companies; the coefficient of term structure is -25. There is no statistically significant effect of abnormal earnings on debt maturity for sample companies. There is a statistically significant positive effect of assets maturity on debt maturity for sample companies at (p=10%), the coefficient of assets maturity is 1%. There is a statistically significant negative effect of tax rate on debt maturity for sample

companies; the coefficient of tax rate is -1.8. There is a statistically significant negative effect of Tobin's Q on debt maturity for sample companies, the coefficient of Tobin's Q is -13%. The adjusted R^2 is 8.19% which means that the independent variables explain 8.19% of the variations in the dependent variable.

Table (3): Estimation results of the model of the study

Dependent Variable: MATURITYD				
White cross-section standard errors & covariance (d.f. corrected)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.2249	0.9151	2.4312	0.0156
FOREIGN	0.5944	0.1485	4.0015	0.0001
DR	1.1986	0.4263	2.8119	0.0052
SIZE	0.0125	0.0176	0.7116	0.4773
AGE	0.2871	0.0676	4.2449	0.0000
INTEREST	-25.0361	7.7221	-3.2421	0.0013
ABNORMAL	0.1669	0.2848	0.5862	0.5582
MATURITYA	0.0074	0.0039	1.9169	0.0562
TAX	-1.7968	0.4975	-3.6113	0.0004
TOBIN	-0.1314	0.0447	-2.9365	0.0036
R-squared	0.1074			
Adjusted R-squared	0.0819			
	Statistic	Prob.		
LM test	9.2418	0.0000		
Hausman test	4.9426	0.8393		

4.4 Analysis of differences in debt maturity according to foreign ownership classification

In order to examine the differences of corporate debt maturity in companies listed in Amman Stock Exchange over the period (2008-2017) in terms of foreign ownership. Table (4) shows the debt maturity values of sample companies classified by their foreign ownership percentages, results show that companies which have a foreign ownership between (0-20%) have a mean debt maturity value of 1.6 years of 30 companies, the companies that have a foreign ownership between (20-40%) have a mean debt maturity value of 2.3 years of 3 companies, companies which have a foreign ownership between (40-60%) have a mean debt maturity value of 1.8 years of 5 companies, companies that have a foreign ownership between (60-80%) have a mean debt maturity value of 1.6 years of 3 companies, companies which have a foreign

ownership between (80-100%) have a mean debt maturity value of 1.2 years of one company.

Table 4. Descriptive statistics for debt maturity categorized by values of foreign ownership

Descriptive Statistics for MATURITYD Categorized by values of FOREIGN			
FOREIGN	Mean	Std. Dev.	Number of companies
[0, 0.2)	1.4554	0.9664	30
[0.2, 0.4)	2.2773	3.2341	3
[0.4, 0.6)	1.8225	1.5729	5
[0.6, 0.8)	1.6125	0.5151	3
[0.8, 1)	1.1573	0.4719	1
All	1.5562	1.2882	42

Table (5) shows the tests for equality of means of debt maturity categorized by values of foreign ownership; results show that there are statistically significant differences in debt maturity of sample companies categorized by foreign ownership.

Table 5. Test for equality of means of debt maturity categorized by values of foreign ownership

Test for Equality of Means of MATURITYD Categorized by values of FOREIGN		
Method	Value	Probability
Anova F-test	2.7311	0.0291
Welch F-test*	2.2306	0.0825

Table (6) shows the test of medians of debt maturity categorized by values of foreign ownership; results show that there is a statistically significant difference in debt maturity of sample companies categorized by foreign ownership.

Table 6. Test for equalities of medians of debt maturity categorized by values of foreign ownership

Test for Equality of Medians of MATURITYD Categorized by values of FOREIGN		
Method	Value	Probability
Med. Chi-square	25.0013	0.0001
Adj. Med. Chi-square	21.2073	0.0003
Kruskal-Wallis	17.8490	0.0013

Kruskal-Wallis (tie-adj.)	21.7134	0.0002
van der Waerden	16.7509	0.0022

5. Conclusions

The main purpose of this study is to investigate the effect of foreign ownership on debt maturity using yearly data over the period (2010-2017) for a sample consisting of 42 industrial firms listed in Amman Stock Exchange. The study documents an average debt maturity of Jordanian industrial companies listed in ASE of 1.6 years which indicates that Jordanian companies use short-term debt more than using long-term debt. The average foreign ownership percentage of sample companies is 20%. There is a statistically significant positive effect of foreign ownership on debt maturity and there are statistically significant differences in debt maturity of Jordanian industrial companies categorized by foreign ownership.

References

- Aggarwal, R., I. Erel, M. Ferreira, P. Matos. (2011). Does governance travel around the world? Evidence from institutional investors. *Journal of Financial Economics* 100(1):154–181.
- Arslan, Ö., Karan, M. B. (2006). Ownership and control structure as determinants of corporate debt maturity: a panel study of an emerging market. *Corporate Governance: An International Review*, 14(4), 312-324.
- Bamiatzi, V., Efthyvoulou, G., Jabbour, L. (2017). Foreign vs domestic ownership on debt reduction: An investigation of acquisition targets in Italy and Spain. *International Business Review*, 26(5), 801-815.
- Brick, I. Ravid, S. A. (1985). On the Relevance of Debt Maturity Structure. *The Journal of Finance* 40(5):1423-37.
- Choi, Y. Choi, J. (2013) The Foreign Ownership and the Debt Maturity Structure. *International Journal of Digital Content Technology and its Applications (JDCTA)*, 7(13):1-15.
- Ferreira, M. A., M. Massa, P. Matos. (2010). Shareholders at the gate? Institutional investors and cross-border mergers and acquisitions. *Review of Financial Studies* 23(2): 601–644.
- Ferreira, M. A., Matos. P. (2008). The colors of investors' money: The role of institutional investors around the world. *Journal of Financial Economics* 88(3): 499–533.
- Flannery, M. (1986). Asymmetric Information and Risky Debt Maturity Choice. *Journal of Finance*. 41(1):19-37.
- Guedes, J., Opler, T. (1996). The determinants of the maturity of corporate debt issues. *Journal of Finance*, 51, 1809-1833.
- Gujrati, D.N. (2004). *Basic Econometric*, (4th Ed.). The McGraw-Hill Companies. New York.
- Guney, Y., Ozkan, A. (2005). New insights on the importance of agency costs for corporate debt maturity decisions. *Applied Financial Economics Letters*, 1(4), 233-238.
- Hajiha, Z., Akhlaghi, H. A. (2011). Ownership Structure and Debt Maturity Structure: An Empirical Study on Iranian Firms. *Middle-East Journal of Scientific Research*, 9(6), 814-825.

- Jensen, M., Meckling, W., (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics* 3, 305-360.
- Kane, A., A. Marcus, R. McDonald, (1985). Debt policy and the rate of return premium to leverage. *Journal of Financial and Quantitative Analysis*, 20, 479-499.
- Lee, Y. C., Chang, W. H. (2013). How Controlling Shareholders Impact Debt Maturity Structure in Taiwan. *Journal of International Financial Management & Accounting*, 24(2), 99-139.
- Modigliani, F., Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3): 261-297.
- Myers, S., (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5, 147-175.
- Ozkan, A. (2002). The determinants of corporate debt maturity: evidence from UK firms. *Applied Financial Economics*, 12(1), 19-24.
- Ruan, W. Cullen, G. Ma, S. Xiang, E. (2014) Ownership control and debt maturity structure: evidence from China, *International Journal of Managerial Finance*, 10(3): 385-403.
- Stohs, M. H., D. C. Mauer, (1996). The determinants of corporate debt maturity structure, *Journal of Business*, 69, 279-312.
- Tanaka, T. (2014) Foreign Investors and the Maturity Structure of Corporate Public Debt. *J. Japanese Int. Economies* 34, 315–335.
- Tayem, G. (2018). The Determinants of Debt Maturity: The Case of Jordan. *Academy of Accounting and Financial Studies Journal*, 22(1):1-13.

Public Performance Evaluation: from the International Debate to the Italian Legal Context

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Abstract In recent years, public administration has experienced a period of strong pressure for change, innovation and modernization that has led in an increasing emphasis on measuring and reporting of results. Still public sector reforms continue to preoccupy governments all over the world since the controversies remain a problem with the integration of decisions concerning the use of the budget means allocated to the results obtained. Because of modernization reforms, the structural foundation of public organizations has changed in many countries. As part of NPM reforms, public organizations have adopted (or trying to) private sector-inspired management techniques, with the declared intention of improving both the quality and productivity of services. The primary cause of this situation has been the growing needs of citizens of services and policies in terms of quality, that public authorities have had and will have to satisfy with increasingly scarce resources. Considering the necessity of greater understanding of the economic and financial performance, this paper discusses the possible modalities, the experiences and the most appropriate processes needed to achieve the strategic and policy objectives for maintaining and improving the quality of services, ensuring the effectiveness of administrative function.

Keywords Public administration; Performance evaluation; Decision-making policies; Management of expenditures; Legal procedure

JEL Classification G28; H00; H11; H83; K4

1. Introduction

In order to improve the effectiveness and the efficiency of the use of budget funds, there is a shift towards the planning and execution of budgetary expenditure for programs and missions, which is the budgeting process based on the principle of public policies financing (results-oriented type). In this type of a financing system,

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the decision-making core is represented by the analysis of a “cost-benefit” parameter, which assesses the conformity of the results achieved with respect to the initial objectives. So far, the integration aspect of decisions on the use of budget means allocated to the results achieved remains controversial (Andrews and Hill, 2003, Gilmour and Lewis, 2006). Therefore, public funding should be linked to the transition to the performance management system, based on the financing of specific programs aimed at the achievement of concrete results. This trend, which reflects the rules established by international practice, is determined by the reduction in public spending based on the estimate of the balance sheet items. Funding based on the estimation it is often associated with inflated figures justifying the amount of the costs for the execution of certain functions of the state. In addition, there is the need for additional costs to control the use of budgetary funds.

This makes the system of funding based on the estimated ineffective. The budget for the programs, on the other hand, aims to solve the problem of growth in public spending and to evaluate the effectiveness of these programs, in order to combine the numerous program budgetary tools used in the budget planning process. The development of this type of budget is an attempt to combine all the means to achieve public objectives and establish the budget in the context of the program, which inevitably leads to a rethinking of the functions and duties of the executive authorities. In this regard, one of the most important steps in budget reform becomes a clear consolidation of authority and responsibility among the public policy executors and co-executors in the process of policy planning and implementation. This paper is organized as follows: in the next section (section 2), the concept of performance and the need to measure it, as well as the major research directions that have been taken on the subject will be discussed in order to introduce the components of the main approaches to the performance evaluation, and what justifies in this case the choice of the valuation method (section 3). The final passage will be to go transversally through principal steps and efforts that have been made at the national legislative level to extend the debate on the subject for the management of the public performance evaluation process (section 4). Conclusion concludes.

2. Theoretical debate and perspectives

Evaluation in the public sphere has a precise meaning, which is primarily linked to the analysis of the effectiveness of policies or programs (Vecchi, 2007). Evaluation refers to the formulation of judgments based on the causal relationships that exist between an action (or a set of actions) and the relevant results through observations, measured with quantitative and qualitative techniques. The results, in this case, are not so much about the production of products, but the ability to change the situation of subjects who are in a condition considered unsatisfactory. Therefore, the basic evidence is a demonstration of the causal link between an intervention and the relevant changes, without which the results would not have been obtained.

The public system performance represents a theoretical construct design that cannot be measured directly, as the aims and objectives of public enterprise (services) are not

expressed exclusively in economic and/or financial terms, but are one-dimensional. Every attempt to measure it involves wide margins of arbitrariness in the choice of the dimensions to be evaluated and of the proxies to be used for the measurement, and must serve considerable approximations (Solipaca, De Belvis, Annexes, 2013). Performance measures, however, have traditionally been one-dimensional in public administrations, concentrated on the level of spending on the purchase of the factors or, at most, on the monetary value of the inputs consumed. This is due to the difficulty of developing a clear understanding of the quantitative and qualitative indicators of the effectiveness of public expenditure. Performance analysis cannot be limited to the quantitative evaluation of the results achieved, but must also focus on their quality and determinants, in a strategic approach (Kaplan, Norton, 1992; Lee, 1997; Cornett, 1998; Melkers, Willoughby, 1998; Kloot, Martin, 2000). Efficiency as an end in itself, meant as a reduction in resources, does not make sense in public services; it is, in fact, a “relative” concept: it measures the resources used with respect to the results achieved.

The concept of the performance and the need to measure it were already present in Taylor’s work (1911) and their usefulness for the government of local administrations were identified by Ridley and Simon since 1943 (Poister, Streib, 1999). However, only with the managerial approach to public administrations, New Public Management (Osborne, Gaebler, 1992; Snell, Hayes, 1993; Hood, 1995; Garsombke, Schrad, 1999; Lynn, 2006) underlined the necessity of pursuing performance results and measurement, through the introduction of Performance Management Systems (Pollitt, Bouckaert, 2000; Hood, 2005; Van Dooren, Bouckaert, Halligan, 2010; Mettler, Rohner, 2009; Nielsen, 2014; Gerrish, 2015), which became the nucleus of intellectual thought in the field of public finance. According to the arguments of NPM supporters, the major results-based assumptions are able to improve the efficiency of public services and effectiveness, as they solicit managers to clarify strategic objectives and to develop results-oriented measures to achieve their goals.

Stimulated by this debate, the performance, since the 2000s, has become one of the most important issues at the international level. One of the research directions was represented by the studies aimed to determine whether performance measurement systems lead to better outcomes in the public context, with varied conclusions. In some cases, the factors contributing to the use of performance information were analyzed (e.g. Ammons, Rivenbark, 2008; Kroll, 2015); in the others, the main research focus has become the way performance measurement systems should be designed in order to achieve the intended results (e.g. Padovi et al., 2010). From an analysis based on the theoretical contributions made at the international level, the research themes were mainly carried out in three directions (Galli et al., 2010). *A first direction* is turned to the past and the compression of the characteristics that have distinguished the reform processes that over time have tried to implement systems for measuring and evaluating performance in different countries. *A second direction* is aimed at the analysis of the impacts produced by the introduction of performance measurement and assessment systems within public administrations. Finally, *a third direction* is addressed to conceptualizing the relationship between measurement and performance evaluation

systems and external subjects, all with a broad reference to network theories, the environment within which performance assumes a new connotation. The evaluation of performance in the public administration has developed and refined in the last decades due to strong requests from institutional subjects both internal and external to the public administration to increase productivity, that is to offer the same services by reducing and stopping the increase in public spending (Ruffini, 2010). Taking into account the peculiarity of public services and consequently the methods and difficulties encountered to measure the results, the identification of the links between the resources used and the expected results has become a priority for public administrations, especially in the context of limited financial resources available. Wherein, according to some authors, the conviction that the level at which performance measurement and evaluation systems need to be analyzed is not the micro one (that is, related to single activities or processes) has increasingly matured, nor the *meso* one, analysis of systems of specific measurement of some public administrations. ***At the center of attention, therefore,*** are the systems of public administrations and the networks in which these systems are inserted in order to define, implement and evaluate public policies, activities, and services rendered to users (Valotti et al., 2010).

The increasing number of empirical contributions which has been undertaken ultimately, concerns, in the first place, the attempts to better understanding the benefits, impacts, and challenges of the conceptual and value interpretations of performance management and measurement in the public sector. The undertaken works have employed different methodologies, like case studies examples, experience-based observations, and surveys. However, the analysis of the various international experiences does not seem to have produced conclusive evidence on the achievement of the assigned objectives.

As it emerges from the contrasting elements that arise from the research carried out in the area of performance evaluation in public administrations, ***the results for the most part would indicate the lack*** of a substantive testimony of the performance management benefits applied at the public sector. Even if in some cases, the focus on performance management seems to be shifting from simple collecting and performing data to actually using them for decision-making process (C. Bianchi, W. Rivenbark, 2013), still there is no clear evidence that performance information has been very successful in meeting the goal of improving performance or that it is being used extensively. In many cases, due to a fundamental misunderstanding of such issues as performance indicators, these last made little or no difference to performance (Parmenter, 2015).

Therefore, just as an important aspect becomes a lack of qualified personnel and/or information systems that are poorly standardized and integrated and considered unreliable by the users themselves (Vasilescu, 2011). Some of the recently conducted researches claim that public sector organizations have a negative image on productivity-related aspects of performance (e.g. Hvidman, 2015), although ***empirical evidence on public and private performance*** is yet weak and ***does not allow any firm conclusion*** that public organizations should perform worse (or better) than private business. The

question is whether negative stereotypes of the public sector nevertheless are reflected in how citizens perceive the performance of public sector provision (Andrews, Boyne, Walker, 2011).

The Consciousness of the *empirically-based type on the effects* that causes information about performance on policy makers is still limited. One of these researches, however, has developed some hypotheses concerning the relationship between performance information and attitudes. The results of an experiment that included the survey among Danish municipal councilors, demonstrates that information on performance matters, in the sense that it affects the attitude of central decision-makers (Nielsen, Baekgaard, 2013). The results also indicate that the guilt-avoidance perspective applied by the authors to hypothesis development could be the guide of the politicians' responsibilities to performance information as opposed to performance-based fiscal recommendations, according to which high performance should be rewarded and low performance should be punished. In particular, it has been found that the experimental treatment of information showing high and low performance had a positive impact on the attitude towards spending, while information on the average performance negatively affected the same attitudes. Furthermore, information showing high performance has made politicians less favorable to the pursuit of organizational reform. An important conclusion of the survey is that a greater appreciation of high performance among policy makers could alter the incentives for public managers to focus not only on avoiding blame but also on the pursuit of success.

3. Methodological approaches to the performance evaluation

Choice of the evaluation methods

The whole variety of evaluation methods found in the literature can essentially be traced back to two main types: evaluation by factors (or fixed parameters) and evaluation by objectives. In the first case, those who evaluate performance do so use a series of parameters, which should identify those components of performance (proficiency, knowledge, ability, organisational behaviour, skills) considered critical for work success. The judgement on each of these components then flows into a synthetic judgement on the whole service provided by the collaborator (Borgonovi, 1998). In the second case, on the other hand, the evaluation is based on the results actually achieved in relation to the objectives initially set; this creates a close integration between the personnel evaluation system and the management planning and control system, since it is the latter that provides the data relating to the results themselves and the planned objectives. This is the method used in Management By Objectives (MBO), which attributes economic recognition to the achievement of objectives. If the objective and factor evaluation methods are used together, then the term "mixed evaluation" is used.

When choosing which evaluation method to adopt, the relative pros and cons should be taken into consideration. With regard to fixed parameters, their definition is characterized by high uncertainty: first of all, there is the problem of identifying "factors that are really significant and observable, so as to allow a thorough

examination of performance”; secondly, it is necessary to clearly define the content, after which the various evaluators can give a homogeneous interpretation (Borgonovi, 1998). On the other hand, however, performance evaluation based on results obtained has the advantage of being more objective and concrete, but there can also be different complexities and problems in defining objectives: “What is the appropriate number of objectives?”, “Are the objectives to be expressed only in numerical or also descriptive terms?”, “How do we weight the different objectives?” ...Moreover, the objectives fail to cover all areas of responsibility which a position includes, so the problem remains to find a way to ensure a comprehensive performance evaluation. This latter problem can be solved by resorting to a mixed system, which examines performance from the dual perspective of the results and behaviours shown (Borgonovi, 1998).

The evaluation, regardless of whether it is related to public policies or not, is a process that is divided into six main stages (Hatry 1999):

- Development of a conceptual model related to the programme subject to evaluation and identification of the key points of the evaluation
- Identification of the evaluation questions and definition of the measurable outcome variables
- Definition of the evaluation design
- Data collection
- Data processing
- Dissemination of the resulting evidence

Identifying the expected results of an evaluation process means defining which information needs the evaluation must respond to. Considering cognitive needs, the evaluation can take five different forms (Martini, Cais, 2000), which represent the classification widespread in the literature and which seem to also be accepted by the European Union¹:

- 1) *Policy and programme design*, i.e. evaluation as a tool to allocate resources to the most deserving uses
- 2) *Management control*, i.e. evaluation as a tool for monitoring performance within organisations
- 3) *Accountability*, i.e. evaluation as a vehicle to account for achievements in a certain field of public action
- 4) *Implementation*, i.e. evaluation as a tool for critical analysis of the implementation processes of a policy
- 5) *Learning*, i.e. evaluation as an estimate of the effects produced by a policy.

Thus, each evaluation must be “tailor-made”, and although the evaluation design can vary in complexity, the evaluation work is always influenced by (Rossi, Lipsey, Freeman, 2004):

6) The purposes of the evaluation.

¹ All public policies financed by the Structural Funds are subject to an evaluation procedure, whose need is reiterated in the Community Regulations, both in Regulation 1260/99, relating to the 2000-2006 programming, and in European Council Regulation 1083/2006, as it concerns the 2007-2013 programming, laying down general provisions on the European Regional Development Fund, the European Social Development Fund and the Cohesion Fund.

- 7) The conceptual and organizational structure of the programme/project/service.
- 8) The resources available for the evaluation itself.

There are therefore no rigid guidelines to guide the design of an evaluation plan, which is always a creative and collaborative effort, - the methodological approach should first be chosen in line with the objective of the evaluation; each evaluation design, however, is structured around the following three points:

- the nature of the relationship between the evaluator and the stakeholders
- the evaluation questions
- the methods of evaluation

Rossi, Freeman and Lipsey propose a systematic approach to the evaluation of public policies that is essentially based on some questions that the evaluator cannot avoid:

- What are the purposes of the evaluation in question?
- What is the structure and context in which the analysed programme is found?
- How should the relationship with the stakeholders be set up?
- What are the evaluation questions that need to be answered?
- What are the applicable methods to give solid answers to the questions asked?

These five evaluation questions constitute the same stages of the process of evaluating a public policy, which are in a hierarchical relationship, constituted by the evaluation of the social problem to which the programme is addressed:

- Evaluation of the social needs to which the programme intends to respond
- Evaluation of the theory underlying the programme
- Evaluation of the process/implementation
- Evaluation of the impact/effects
- Evaluation of efficiency

With *the evaluation study of social needs*, we try to answer the question “What is the problem?”, around which arise a series of questions and epistemological issues with the aim of defining the problem in its dimensions, trends and particular characteristics, making use of both quantitative techniques and data and also *qualitative* methods of investigation that allow the problem to be described, and take into account the different perceptions of it by the different stakeholders.

The theory of the programme is broken down by the authors into two main components:

- impact theory, which refers to the change expected after the programme according to a chain of causal events and links;
- process theory, which describes the steps and activities to be performed in the organisation and implementation of the events.

The theory of a policy can be both “explicit” and “implicit”, and it is up to the evaluator to define the average through different information sources, which make it possible to gather a policy’s objectives, its functions, components and activities of the programme, as well as the sequential logic that binds functions, activities and products. If the theory underlying a policy is considered well defined and justified, then it is possible to continue with the evaluation. Otherwise, it would not make sense to continue, because every result obtained would be impossible to interpret in relation to the policy.

The purpose of *the evaluation of the implementation process* is to understand “what the

programme really is”, and whether the services/interventions actually reach the target population or not. It can be carried out in retrospect (programme process evaluation), necessary for impact evaluation, or in an ongoing manner (continuous programme monitoring), which is necessary mainly for programme managers, as it provides regular feedback on the implementation of interventions. Evaluation of a policy’s implementation process also takes on a certain importance in terms of *accountability*, since it helps all possible stakeholders realise “what the organisation is doing”. Some aspects of the analysis are the level of participation/involvement of the *target* population, the level of “*bias*” in the provision of a service, and the level of dropouts. By comparing the results of this analysis with the theory of change underlying the policy, it is possible to know whether the policy is implemented as planned or not (*implementation failure*).

The identification and measurement of the causal link between the process variable (the product or output) and this dependent variable (effect or outcome variable) constitute the challenge of *evaluating the effects of the policy*. The outcome variable can be considered from different points of view:

- outcome level
- outcome change
- programme effect (impact)

The authors stress the importance of the distinction between monitoring and measuring outcomes and impact evaluation. Monitoring (*programme monitoring*) can be defined as the systematic collection of aspects of a programme’s performance that indicate whether it is functioning as originally intended or in accordance with certain previously established *standards*. The subject of the monitoring is the programme’s *performance*, which can concern the products, *the outcomes*, and the implementation process. Monitoring, even if based on observation of indicators related to outcomes, cannot be defined as “evaluation of the effects”. Impact evaluation can only be carried out after making the evaluations placed at the lower stages of the “hierarchy”. We talk of a “*black box*” evaluation when the evaluator conducts an impact analysis without knowing anything about the processes that generated these effects. This is basically a comparative analysis: the group addressed compared to the control group; or factual counterfactual value, that is, the estimate of the value that the variable result would have had if the group addressed had not been subjected to the process.

Efficiency evaluation, as well as impact evaluation, is more appropriate for mature and stable programmes. It can be carried out *before the event* (for allocative choices in the presence of scarce resources - allocative efficiency) or *after the fact* (as an extension of the impact evaluation). The authors identify two sub-categories:

- cost-benefit analysis (the effects of the programme are expressed in monetary terms)
- cost-effectiveness analysis (the effects of the programme are not transformed into monetary terms).

Measurement of the performance: the indicators' problem

The multidimensionality of the performance, as it was noted before, requires a measurement and evaluation process, powered by qualitative and quantitative information (Bouckaert, 1995; Hatry, 1999; Jackson, Palmer, 1992). It requires the development of a system of indicators, as well as a process of monitoring, reporting and use of functional information in decision-making. The link between performance management and performance measurement is fundamental here, as performance management incorporates and uses in the decision-making process the information produced by the performance measurement (Van Dooren, Bouckaert, Halligan, 2010). The existence of a performance measurement system is a necessary condition for directing and focusing the attention of the decision makers on the results and their determinants, in order to make employees aware of what is expected of them and to raise awareness of the stakeholders for the purposes, the objectives, and the results of the organization and the manner in which they were achieved (Nisio, 2012).

On the subject of indicators, as Palumbo points out, two different conceptions face each other (2001). According to the first concept, which is closer to the lexicon of social research, the indicators are specifications and articulations of a given concept in measurable or otherwise detectable dimensions. As a rule, one must observe something that is possible to know (and perhaps measure) in place of something else that cannot be accessed directly. So, in many concrete situations, variables of the most interest are almost never immediately translated into direct data collection operations. The degree of functioning of a program, the level of achievement of its objectives, can be known through indicators, which are the result of the decomposition of a more general concept into one (usually more than one) more precise, susceptible to lead to detection and measurement procedures. The indicator is, therefore “a property that the researcher conceptualizes both as such, and as a surrogate of another that interests him more”, where “the necessary and sufficient condition for the use of indicators is, therefore, the impossibility (or the serious difficulty) to give a satisfactory operational definition of a property that affects, regardless of its level of generality, theoretical relevance, or other quality” (Palumbo, 2001 see Marradi, 1994).

The second concept, which is closer to the statistical exception, as elementary processing of basic data, does not start from the concept to then define the indicators, but from the existing data to ask how these can be elaborated, in a more or less complex way, in order to provide a known contribution to the problems. The two meanings actually correspond to two different strategies for the construction of indicators: the first one favors the process of conceptual clarification and the subsequent operations of identifying indicators that are, firstly, valid and only secondly readily detectable or, at the limit, obtainable from data already available; the second strategy starts from the available data (or easily detectable) to define only in the second measure which their elaborations can be considered valid indicators of the concept to be measured. The two strategies, according to the same author, can also be traced to a deductive and an inductive approach (see Palumbo, 1995, 2001), where, in both cases, different paths

can be defined between the following steps:

- data – available or detectable
- information – data structured according to given criteria
- indicators – structured information and possibly elaborated according to given criteria
- concepts – to which the indicators are referred. (Palumbo, 2001)

In fact, an intermediate way is often followed in the evaluation process, inasmuch the specification of the concepts develops in tandem, normally with the analysis of the available information and the indicators help to specify the concept itself more than it determine the choice. Both in the case of the defined “sociological” and “statistical”, to be adequately used in the evaluation process, the indicators must possess the following characteristics (Palumbo, 2001 see Zajczyk, 1997):

- *validity*, understood as the ability to effectively represent the concept indicated in an acceptable way
- *reliability*, when the outcome of the operations set up during the operation is positive, i.e. it effectively captures the status of the properties that the researcher had set out to observe
- *sensitivity*, or power of resolution, understood as the ability to discriminate between the different forms that a phenomenon can take
- *adequacy*, or degree in which the indicator meets the evaluator’s cognitive needs
- *comparability*, which may concern both the spatial and temporal dimensions, i.e. the possibility of comparing the same phenomenon in different territorial areas, the same phenomenon in the same area but at different times
- *timeliness*, or the inclusion of the indicator within a decision-making or evaluative process of support that makes it necessary to have the indicator itself in adequate time to modify a program or an intervention thanks to the opinion formulated on the basis of the indicator.

The use of indicators, however, is not very productive if it is not linked to the theory of the program (as mentioned in the previous pages). The problem arises, in particular, when using indicators in a statistical sense, that is when one appeals to elementary processing of available data, already recorded for other purposes, intended to bend to the assessor’s cognitive needs. On the one hand, the specific context in which the survey will take place must be entered (Palumbo, see Cannavò, 1999) and, on the other, the theoretical frame of reference that provides sense and meaning to the concept. Therefore, the indicators are constructed, and in the case of the indicators used in the evaluation, the theoretical references are inextricably linked to those of a practical nature: an intervention is carried out because the production of certain consequences is expected and, on the other hand, on the basis of the consequences will be judged not only the quality/value of the intervention achieved but also the inspiring theory.

4. Legal background

The need to improve performance is not exclusive to the private sector but also applies to public administrations. Unlike the private sector, where efficiency is due to the need

to obtain real profits compared to operating costs and where the market bears witness, there is no such evidence in the public administration, and the NPM reforms represent an attempt to establish the public sector as an equivalent to market discipline.

In Italy, the growing interest in evaluating performance is not only due to the problem of the system's economic sustainability but also to the effects of the profound political and organizational changes observed over the last 20 years (Solipaca et al, 2013). Already in the 1980s, when people began paying attention to reducing spending and improving the competitiveness of the public sector, some awarding institutions were introduced for the first time in public employment contracts, but the recognition of merit remained more than anything else a formal declaration, valid "only on paper". In fact, the interventions were calculated on the basis of the contractual level of classification and the rate of presence, without any attention to commitment, results, skills, etc. (Mattalucci, 2011).

In the 1990s, through some legislative measures, the theories of modernization of the Public Administration were tested, defined by some authors as a modernization process managed by law (Rossi, 2013). The key concept promoted by many reforms of the Italian public administration at the time concerned the full use of systems for evaluating staff, and in particular management, the establishment of bodies responsible for measuring and evaluating effectiveness and efficiency of the public administrations' activity, the refinement of punishment/reward systems, as well as the efficiency of public spending and better organization of public administrations. In the literature there is a distinction of several reform cycles in terms of public management (e.g. Ongaro, 2009), which summarize the administrative activities and legislative procedures performed in the 1990s with the aim of improving the quality and efficiency of programming public policies, up to the need to reorganize and strengthen the system with the aim of "ensuring high quality and economic standards of the service through the valorization of results and organizational and individual performance" (Legislative Decree No. 150/2009 Art. 2) , and therefore *putting the concept of performance at the center*.

The new reform (so-called Brunetta reform) is inserted, as noted by some authors (e.g. Vasilescu, 2011), in a context of growing distrust in the ability of public administrations to provide adequate responses to the social and economic problems of the country, explicitly acknowledging that the pre-existing systems had not achieved the expected results. An official document notes that the verification of objectives is currently limited in the majority of cases to the sole implementation of spending programs and performance reports do not allow an assessment of the degree of achievement of the programmatic objectives, but are limited to a mere description of the administrative activity for the expenditure of allocated funds (Council Presidency, 2009). Although inspired by previous attempts to reform the public administration, the document develops classical and central themes introducing novelty and some radical turns. In this context, performance is intended as the contribution (result and modality of achievement of the result) that a subject (system, organization, organizational unit, team, single) contributes through its action to the achievement of goals and objectives

and, in ultimately, to the satisfaction of needs for which the organization was formed. Moreover, the legislative decree 150/2009 emphasizes that the administration's performance has to be intended as the performance of the organization based on the performance of its staff.

The "Sistema della Performance" introduced by Legislative Decree 150/2009, can, therefore, be basically conceived as the set of tools through which the Public Administrations and the Territorial Bodies, plan, manage, measure, control, evaluate and communicate the own performance, from an organizational and individual perspective (Corteselli, 2016).

In spite of the fact that it was a strong application, supported by specific legislation, the implemented performance management systems had significant limitations and encountered slowdowns. The rapid start-up of the new systems did not respond effectively to expectations, as they were connected to the period (2009-2014) of the financial and economic crisis and frequent changes in government (Rebora, Ruffini, Turri, 2015). As noted by the authors themselves, in practice the developments of the 2009 reform experienced the same difficulties that had hindered previous attempts, imposing very heavy management obligations on the administrations without producing significant benefits (Rebora et al, 2015).

Among the most important topics of the recent turn, that the reform of public administration has taken² was that of open data and transparency, as tools to make what the public administration does and what results it produces more understandable. Unlike international experiences, however, in Italy there seems to prevail, as some scholars have pointed out (Corteselli, 2016), a "particular type of transparency focused on the right-duty to information, but above all on the objective of increasing widespread control of public administration".

Transparency often intended mainly as a communication of things that "should" means more than an administrative action value. In turn, the suppression and manipulation of negative data leads to the perception that there is a lack of transparency in public performance reporting, leaving the obstacle for the effective implementation of performance measurement. In the Italian public administration, a legal and bureaucratic culture evidently prevails (Borgonovi, 2005), which has traditionally left out analysis of the managerial component and in particular of performance; so transparency means primarily widespread controls against illegality and then as a stimulus to improve the results of public action.

Other aspects of the reform evoke the need to provide for the digitization of the performance measurement and evaluation process to allow coordination at national level³; they expect the processes of independent evaluation of the level of efficiency and quality of the services and activities of the public administrations and of the impacts produced, also through the use of standards of reference and comparison.

Conclusion

² Entry into force on 2 July 2016 of Presidential Decree No. 105 of 9 May 2016.

³ Law 124 of 7 August 2015.

The need to improve performance is not exclusive to the private sector but also applies to public administrations. Unlike the private sector, where efficiency is due to the need to obtain real profits compared to operating costs and where the market bears witness, there is no such evidence in the public administration, and the NPM reforms represent an attempt to establish the public sector as an equivalent to market discipline. An important feature in the evaluation is that it can be considered as a comparative activity, based on the methodology of research in the human sciences, which in the case of the public administration aims to establish a comparison between institutions, processes, and behaviors with a reference to different contexts, and implies satisfaction of two conditions: the availability of at least two concrete cases; and the adoption of a descriptive approach aimed at illustrating the differences between different contexts and providing interpretative keys (Pickvance, 2001). However, scientific research on the benchmarking of evaluation systems has been more focused on a national rather than a regional level. The numerous analyzes conducted at the regional level have been mainly oriented towards establishing comparisons between regions within the same country, rather than between regions of different countries. As an interpretative key to this phenomenon, it is identified by scholars in the *difficulties connected to the search for homogeneous conditions* in the comparison between two different institutional contexts (e.g. Bianchi, Rivenbark, 2013).

As a key aspect of evaluation analysis of the public policies effects is considered a possibility to make the specificities and institutional characteristics that subtend its implementation more transparent (Potì, Cerulli, 2010). The concept of transparency, which is the basis (after the measurement and assessment of organizational and individual performance) of public administration reform, is often cited as an indispensable element inasmuch it allows citizens to know, not just the situation of individuals which operate within the framework of every entity of the public administration, but also, in general, the way the administration operates. In practice, however, it happens that only a small percentage of the stakeholders are able to learn the information, which leads to thinking of their involvement in the definition of the priorities of the administration and in the decision-making processes apparently not considered.

It is obvious that the qualification of the activities of the use of budget allocations as “ineffective” requires special tests proves of the existence of a practical alternative to the possibility of activities, which could lead to a better use of the resources. Consequently, the core issue, in this case, becomes the need to set a legal mechanism appropriate for the reception and presentation of such tests and therefore, to assess the effectiveness. It is a fact that reforms, in general, are projected for the long term, when the launch of a standard does not immediately bring benefits, but instead is the starting point of a path that must be followed and monitored in order to understand the gaps and to develop the appropriate supplementary corrective measures (Rossi, 2013).

Building a performance-based administration *does not seem to result from the adoption of horizontal regulations*, but mostly from the triggering of change and learning processes within administrations. The tools to support performance are

characterized by the implementation process and their proper functioning also depends on the actors involved and their interaction (Butera, Dente, 2009, Vecchi, 2010). The orientation of the administrative action towards the introduction of performance systems is *not so much a direct consequence of the laws, but of the action* of development agents and leaders who have a strong interest in the use and diffusion of such systems to support the decision-making processes. It is, therefore, a matter of a lot that is much more than a purely normative process and also of a technical order because it configures a challenge between alternative solutions and administrative models, a competition that invests decision and power centers (Rebora et.al. 2015). This represents a difficulty, not only because it is challenging for all the subjects involved, but because it produces significant consequences through sense-making processes, which may have unexpected and contradictory results compared to the expectations of the promoters of the reforms.

However, based on the experiences of research works carried out on the subject matter taking into consideration practice of other countries, the influence of the regulatory systems is *an important reference element* for the comparative analysis on performance management.

References

- Abdel-Maksoud A., et al. (2015). The Use of Performance Information in Strategic Decision Making in Public Organizations. *International Journal of Public Sector Management*, Vol.28, No.7, pp.528-549.
- Ammons, N., and Rivenbark, W. (2008). Factors Influencing the Use of Performance Data to Improve Municipal Services: Evidence from the North Carolina Benchmarking Project. *Public Administration Review*, Vol.68, No.2, pp.304-318.
- Andrews, M., and Hill, H. (2003). The Impact of Traditional Budgeting Systems on the Effectiveness of Performance-based Budgeting: A Different Viewpoint on Recent Findings. *International Journal of Public Administration*, Vol.26, No.2, pp.135-155.
- Borgonovi, E. (1998). *Formare la Dirigenza per Riformare la Pubblica Amministrazione. LAVORO E SICUREZZA SOCIALE*. Francoangeli.
- Cope, G.H. (1987). Local Government Budgeting and Productivity: Friends or Foes? *Public Productivity Review*, Vol.10 (3), pp.45-57.
- Cornett, C. (1998). California's performance budgeting pilot project: A view from the legislative. *Cal-Tax Digest*, February.
- Garsombke, H.P., and Schrad, J. (1999). Performance measurement systems: Results from a city and state survey. *Government Finance Review*, February.
- Gilmour, J.B., and Lewis, D. (2006). Does Performance Budgeting Work? An Examination of the Office of Management and Budget's PART Scores. *Public Administration Review*, 66(5), pp. 742-752.
- Hood, C. (1995). The "New Public Management" in the 1980s: Variations on a theme. *Accounting Organization and Society*, Vol.20 (2-3), pp.93-109.
- Hvidman, U., and Andersen, S. (2015). Perceptions of Public and Private Performance: Evidence from a Survey Experiment. *Public Administration Review*, Vol.76, No.1, pp.111-

120.

- Kaplan, Robert S.; Norton, David P. (September 1993). "Putting the Balanced Scorecard to Work". *Harvard Business Review*.
- Kroll, A. (2015). Exploring the Link Between Performance Information Use and Organizational Performance: A Contingency Approach. *Public Performance and Management Review*, Vol.39, No.1, pp.7-32.
- Kroll, A., and Moynihan, Donald P. (2015). Does Training Matter? Evidence from Performance Management Reforms. *Public Administration Review*, Vol.75, No.3, pp.411-420.
- Lee, R.D., Jr. (1997). A Quarter Century of State Budgeting Practices. *Public Administration Review*, 57(2), pp. 133-140.
- Melkers, J., and Willoughby, K. (1998). The State of the States: Performance-Based Budgeting Requirements in 47 out of 50. *Public Administration Review*, 58(1), pp. 66-73.
- Moullin, M. (2007) 'Performance measurement definitions. Linking performance measurement and organisational excellence', *International Journal of Health Care Quality Assurance*,20:3,pp. 181-183.
- Ngacho, C., and Das, D. (2015). A Performance Evaluation Framework of Construction Projects: Insights from Literature. *Project Organisation and Management*, Vol.7, No.2, pp.151-173.
- Nuti, S. (2008). La Valutazione per la Governance del Psr. *Salute e Territorio*, Vol.166, pp.53-64.
- Ongaro, E. (2009). Public management reform and modernization. Trajectories of administrative change in Italy, France, Greece, Portugal and Spain. Edward Elgar, 2009, pp.316.
- Osborne, D., Gaebler, T. (1992). *Reinventing Government: How the Entrepreneurial Spirit is Transforming the Public Sector*. Plume. New York.
- Poister, T.H., and McGowan, R.P. (1984). The Use of Management Tools in Municipal Government: A National Survey. *Public Administration Review*, Vol.44 (3), pp.215-223.
- Poister, T.H., and Streib, G. (1999). Performance Measurement in Municipal Government: Assessing the State of the Practice. *Public Administration Review*, Vol.59 (4), pp.325-335.
- Poister, T.H., and Streib, G. (2005). Elements of Strategic Planning and Management in Municipal Governments: Status after Two Decades. *Public Administration Review*, Vol.65 (1), pp.45-56.
- Pollitt, C., Bouckaert, G. (2000). *Public Management Reform: a Comparative Perspective*. Notes from supporting the international conference on modernization and state reform.
- Poocharoen, O.-O., and P. Ingraham (2003). "Integration of Management Systems in Government Performance Project," *Paths to Performance in State and Local Government: A Final Assessment from the Maxwell School of Citizenship and Public Affairs* (Syracuse: Maxwell School).
- Poti, B., and Cerulli, G. (2010). La Valutazione Ex-post di Uno Strumento di Politica della Ricerca Industriale: Modello Analitico, Processo di Realizzazione, Eterogeneità degli Effetti. Ceris-CNR, Roma.
- Rutherford, A., and Meier, Kenneth, J. (2014). Managerial Goals in a Performance-Driven System: Theory and Empirical Tests in Higher Education. *Public Administration*, Vol.93, No.1, pp.17-33.

- Snell, R., and Hayes, K. (1993). Performance budgeting and the states. Presented to the Nebraska Legislative Appropriations Committee, London, NB.
- Valotti, G., Galli, D., Orlandi, A., Rota. (2010). La Misurazione e la Valutazione della Performance nella PA Centrale. SDA Bocconi School of Management.
- Valotti, G. et al. (2012). Il Livello di Diffusione del Performance Management tra I Dirigenti Pubblici delle amministrazioni Centrali. SDA Bocconi School of Management.

The Abe administration's policy about the Senkaku Islands and a Role Theory

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Abstract The article shows the result of the research on foreign policy about the Senkaku/Diaoyu Islands during the Second Abe administration. It focuses on Japan's relations with the US and China. Role theory, centered on its key concept of National Role Conceptions (NRCs) is used as a theoretical framework. Using Japanese and foreign political leaders' statements, NRC analysis gives the opportunity to grasp the degree of consistency between those of Japan and those of the targeted countries. Three key Japan's NRCs: *protector of Japanese sovereignty*; *promotor of universal values*; *realist who aims to avoid exacerbating diplomatic relations with the neighboring countries* are found. This thesis argues that Prime Minister Abe is determined to protect Japan's sovereignty but his first aim to reinforce the administration over the islands has not been achieved. The US supports Japan's administrative right but opposes any Japan's behavior which destabilizes East Asian security environment. China claims its territorial right over the islands for historical reason and cannot compromise to maintain its domestic legitimacy. Abe increases Japan's deterrent near the Senkaku Islands and promotes value-oriented diplomacy in this region and safeguards the sea lane which is vital for Japan's economy. Abe says that he does not refuse a dialogue but it does mean Japan is willing to make a concession. As a result, the territorial dispute remains unresolved.

Keywords: Role theory; the Abe Administration; the Senkaku Islands; Relations between Japan and the US; Relations between Japan and China

JEL Classification: D74; D81; H12

Introduction

Abe's foreign policy about the Senkaku/Diaoyu territorial dispute is an interesting case to examine in terms of International Relations. Before becoming prime minister in December 2012, Abe, inherently conservative and hawkish politician, asserted Japan should strengthen the control over the islands (The Japan Times, 2012). At

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the same time, however, Abe emphasizes friendship and coprosperity with China and refrains from strengthening Japan's exercise of sovereignty over the territory. Abe's firm attitude can be found mainly in his statements such as speeches, interviews, and remarks on the press (statements altogether) and not in his behavior. Abe also supports value-oriented diplomacy which emphasizes political values such as democracy, freedom of the navigation and rule of law, but it does not lead to stir up the territorial dispute in the East China Sea (ECS) which peaked in September 2012 when then Democratic Party of Japan (DPJ) administration nationalized some of the islands (Drifte 2014). This article tries to understand the discrepancy by using role theory, which derived from constructivism, as a theoretical framework on Abe's foreign policy. First, the article describes national role conceptions (NRCs), Abe and other influential decision-makers promote. NRCs are defined as 'the policy makers' own definitions [. . .] of the functions, if any, their state should perform on a continuing basis in the international system or in subordinate regional systems' (Holsti 1970: 24-246). The originality of role theory resides in the fact that the perception and subsequent role performance of a given state interact with the perception and performance of what is called the ego-part (domestic constituencies) and the alter-parts (foreign countries). The article aims to detail the measures the Abe administration takes in the specific issue of the Sentaku Islands from cognitive and normative perspectives by role theory. It is examined how the Abe administration perceives the international environment around Japan related to the issue and how it determines the roles. Abe decides Japan should perform in taking into account the symmetrical perception of the two key concerned alter-parts, the US and China.

Role Theory and the Abe administration's Senkakus Policy

From a realism theoretical perspective, Japan's foreign policy can be assumed to counter China because the distribution of power is changing in the ECS due to this latter country's economic development and maritime expansionism (Hasebe 2017). While this is true to some extent, realism cannot fully explain Abe's Senkakus policy. The Balance of power concept concurrently provides room to justify policies that would strengthen Japan's control over the islands and - at the opposite - reasons to refrain from excessively beefing it up. Strengthening the effective control over the Senkakus would satisfy himself and his right-wing supporters but probably would make Japan run the risk of lowering the level of trust Japan has built with some countries, notably the US, the most important security partner, and China, the most important economic partner. Conversely, expressing its eagerness to defend the sovereignty over the islands, Abe may hope to settle for the dispute in a peaceful way. Thus, realism is not enough to explain what position Abe is taking with regard to the Senkakus.

Still, Abe's policy about the Senkaku Islands has often been analyzed by realism, which focuses on how China began strengthening its claim over the islands since the 1990s and how Japan regarded the move as a threat and increased its defense capability. There is also a liberal approach, which mainly addresses the issues such as international maritime law and historical perspective and how both countries can

cooperate with the exploitation of maritime resources in the ECS to put aside the dispute (Ramos-Mrosovsky 2008). Some researchers use different perspective such as 'securitization', which derives from constructivism but there are few constructivist approaches to analyze this topic, especially the latest Japanese administration (Danner 2014).

This article intends to fill the gap by providing a guide for how role theory can be used to study the Senkaku territorial dispute without denying realism and liberalism. Delving into the roles and factors that contributed to the formation of Abe's policy and paying attention to their characteristic is helpful to understand the Senkaku territorial dispute in a comprehensive way. Role theory is helpful because it takes both domestic and international politics into account on the assumption that a political leader's subjective understanding of his/her country's NRC corresponds to the appropriate foreign policy the country should implement. For example, Maull (2011) examined Japan-US relations and argued that the US expected Japan to increase its self-defense capability and to remain a faithful ally which contributes to sustaining US regional and global policies through material, financial, political and security support. It could be argued that it is precisely what the Abe administration has attempted to do during the last six years. Hirata (2016) argues that when politicians defending a different strand of NRC take over, they can be expected to insert their NRCs into their foreign policies and, subsequently, it leads to policy changes. For example, it can be said that mercantilism diminished and normalism, which argues that Japan should take more international responsibility including security as a 'normal country', prevailed after the Cold War.

In specific contexts and time countries can play roles of 'bastion of revolution-liberator, regional leader, regional protector, active independent, liberation supporter, anti-imperialist agent, defender of the faith, mediator-integrator, regional-subsystem collaborator, developer, bridge, faithful ally, independent, example' and others (Thies 2014: 2). These roles or social positions stipulate functions and aims in the international system and reflect the perception of domestic and foreign expectations by top leaders. Considering the fact that the territorial dispute related to the Senkaku Islands is a primary source of tension between Japan and China it can be considered a good case to apply role theory to analyze the interplay of roles of Japanese (the Abe administration), US and Chinese leaders.

Abe's policy on the issue apparently changed after assuming the office of prime minister. This research aims to enrich foreign policy analysis by identifying the most salient role conceptions that he expressed since 2012. Combining analyses of ego-part and alter-part, this paper aims to assess the consistency and inconsistency resulting from Abe's choice of appropriate Japan's NRCs. This will give the opportunity to observe the evolution of Japan's NRCs over the Senkaku Islands over time and to draw a tentative conclusion on the evolution of the conflict.

This article uses an inductive method to collect statements to extract Japan's NRCs and role expectation of Abe and does not set any NRCs beforehand. Statements which reflect particular responsibility, function, and aim related to the Senkaku Islands Japan

takes. This is the same in examining role expectations. Secondary sources, such as pieces of material originating from the government and other political elites in Japan and in the key alter-parts are used when they can help understand the meaning of the statement more precisely.

Abe's Senkaku policy revealed that he did not intend to exacerbate relationship with any country. There were internal and external expectations not to make trouble with China which, for example, led Abe to give up his idea of stationing official workers that he had aired in the general election of 2012. While Abe was determined to protect the sovereignty over the Senakaku Islands and to continue to reinforce Japan's defense capability around the islands, he refrained from strengthening direct control over the islands once he became prime minister. So, there was a gap between his role conception and his role performance before and after his accession to office.

Historical Account of the Senkaku Territorial Dispute

The Senkaku Islands consist of five islets and three barren rocks in the ECS named Uotsurijima, Kitakojima, Minamikojima, Kubajima, Taishojima, Okunokitaiwa, Okinominamiwa, and Tobise. Most of the islands are rocky and not appropriate to live. Until the modern era, there were no permanent residents and it was 'terra nullius' although fishermen in Japan and China knew the islands as a good fishing ground (Chung 2004).

Japan carefully researched on the ownership of the Senkaku Islands under the international law and incorporated them in January 1895, after taking measures in accordance with international law. And then in April of that year, the Shimonoseki Treaty was signed as a result of the Sino-Japanese War which led to the incorporation of Taiwan and the Pescadores into Japanese territory. After the conquest, the Japanese government lent Koga Tatsushiro, a Japanese merchant, four islands, Uotsurijima, Kitakojima, Minamikojima and Kojima for free for 30 years. Koga managed a dried bonito factory on the islands and there were residents until 1940. Then, they became uninhabited again (Chung 2004).

In the Cairo Declaration of December 1943, the UK, the US and China suggested that Japan return all the islands in the Pacific which it had seized or occupied from the beginning of World War 1, and that 'all the territories Japan has stolen from the Chinese, such as Manchuria, Formosa, and the Pescadores, shall be restored to the Republic of China'. Those decisions were included in the Potsdam Declaration in 1945 that Japan accepted when it surrendered (Zhong 2012).

The US occupied mainland Japan and Okinawa Prefecture separately and the Senkaku Islands were under the control of the government of the Ryukyu Islands which existed from 1952 to 1972 in current Okinawa prefecture. No one, even China doubted that the Senkaku Islands were Japanese territory. Finally, Japanese prime minister Sato Eisaku and president Nixon agreed on reversion of Okinawa and it was returned to Japan in May 1972 (Hosaka et al 2012). Territorial dispute occurred when the United Nations Economic Commission for Asia and the Far East reported offshore oil resources around the islands in 1968. Then, China made an official

statement about the territorial right in 1971 for the first time. Although Japan and China normalized diplomatic relations in 1972 and concluded the Japan-China Peace and Friendship Treaty in 1978, they discussed the territorial dispute in the negotiation process. However, Japanese and Chinese political leaders decided to shelve the issue because priority was given to the development of economic relations between the two countries. They made a tacit agreement without conceding the territorial right to each other. The idea was that it was better to postpone the conflict resolution to the next generation (Hosaka et al 2012).

The Chinese government respected the tacit agreement until the beginning of the 1990s. Then it started to officially claim its territorial right. The government stipulated the Senkaku Islands as its territory for the first time in the 'Law of the People's Republic of China on its Territorial waters and their Contiguous Zone' enacted in 1992. Since the late 1990s, Japan became more concerned about its expanding area of maritime operations and constant dispatch of public ships and People's Liberation Army Navy vessels around the islands (Hosaka et al 2012). In December 2008, vessels of the China Marine Surveillance Headquarters under the State Oceanic Administration stayed in Japan's territorial waters around the Senkaku Islands for hours for the first time. The aim was to emphasize China's maritime sovereignty over the islands. The tension rose again in 2010 when the DPJ government detained the captain of a Chinese trawler and attempted to indict him because the trawler was sailing in the Senkaku Islands waters. The scheme aroused China's anger considerably (Anami 2012). Chinese official vessels increased their entries into the contiguous zone and the Japanese territorial sea around the Senkaku Islands after the incident. The frequency of Chinese vessels' intrusion into the Senkaku Islands maritime areas increased after the Japanese government announced the transfer of the ownership in September 2012. This is because China considered the nationalization of the Senkaku Islands in 2012 a fundamental breach of the territorial problem shelving agreed in the normalization process (Maslow 2016: 198-199). Since that, vessels of China's law enforcement authorities have been continuously standing face to face with JCG patrol boats in waters surrounding the islands until now.

National Role Conception of the Senkaku Islands

Examining statements of Abe reveals that the Abe administration has three main NRCs: *protector of Japanese sovereignty*; *promotor of universal values*; and *realist who aims to avoid exacerbating diplomatic relations with the neighboring countries*.

From the beginning of the Abe administration until today, it has maintained the idea that China, which has increased its defense expenditures annually by more than 10% since 1989, is a threat and Japan has to strengthen the defense capability to deter China. It has resulted in launching an earnest defense buildup program, with particular weight given to the Nansei Islands, which form a chain of islands from Kyushu to Taiwan. Abe showed his determination 'to defend fully people's lives, our territory, and our beautiful ocean' (Abe 2012a) and this determination is motivated by his sense of danger that 'the security of Japan is not someone else's problem; it is a crisis that

exists right there and now' (Abe 2012a). And his statements revealed that deterrent such as the JCG and the Self-Defense Forces (SDF) play important roles. In 2014, in response to China's assertive posture after the nationalization, the Abe administration relaxed restraint on the SDF's action in the case of 'gray zone' infringement, i.e. a border incursion that does not lead to serious armed conflict (Gupta 2014). Putting emphasis on deterrent resulted in taking other security measures like this to make a favorable security environment for Japan. For example, the Abe government has built bases for the SDF composed of guards and missile units since 2014 in Western islands next to Okinawa Island such as Amami Oshima, Miyakojima, and Yonagunijima which are near the Senkaku Islands. Such reinforcement of security measures enables to attack vessels approaching the Senkaku Islands with missiles (Clint 2014). In addition, the Maritime Safety Agency strengthened its mechanism to patrol around the Senkaku Islands by having 12 large-sized patrol boats (10 in Ishigakijima, 2 in Okinawa Island) by the end of 2016. The total number of the staff of the Maritime Safety Agency in Ishigakijima near the Senkaku Islands is about 700 (Asahi Shimbun 2017). They were a manifestation of Abe's determination of protecting the Senkaku Islands by increasing 'defense budget, as well as the budget for the Japan coast guard' (Abe 2013a). In 2016, the government decided to increase the budget for the JCG to increase the number of the JCG staff who were engaged in dealing with the Senkaku Islands and improve maritime surveillance capability of the JCG (The Japan Times 2016). All these measures are designed to enable Japan to respond more quickly in a future conflict over the Senkaku Islands to have China recognize that 'it is impossible to try to get their way by coercion or intimidation' (Abe 2013a). Abe never thought that Japan could ensure its security by itself. He thought cooperation with the US and other like-minded countries was necessary. Abe considered the strengthening ties with the US a crucial role so that China's territorial expansion would be halted. For Abe, the existence of the Japan-US alliance is a 'stabilizing factor, which contributes to peace and stability of the region' (Abe 2013b). In other words, this region would immediately become unstable without the Japan-US alliance from Abe's point of view.

Abe's commitment to protection of Japan's sovereignty and economic prosperity leads to Japan's proactive activity in taking defensive measures. The Second Abe administration established the National Security Council and made National Security Strategy for the first time as well as an increased defense budget. He also revised the three principles regarding arms exports and paved the way for international joint development of defense equipment. State secrecy law was also enacted to secure security information (Hughes 2015). Finally, Abe revised the Japan-US defense cooperation guidelines and made security-related laws in 2015 (MOFA 2015).

Also, the Second Abe administration strengthened ties not only with the US but also with Australia, India and the Philippines in the form of 2+2 meetings, providing arms, maritime patrol vessels, joint exercises and so on to secure the safety of the sea lane (Prashanth 2015). The intention of Abe, whether in the framework of the Japan-US alliance or not, has had a clear orientation to have Japan align with democracies in promoting NRC of universal values. Abe expanded conventional Japan's security

policy which has emphasized Japan is a member of the group of democratic countries. In doing so, he intended to have Japan perform what he considered an appropriate role as a 'mature maritime democracy' (Abe 2012b). In reinforcing its defense capabilities Japan was defending the rule of law, democratic values and human rights.

Strengthening ties with those countries indicates that Abe wants to establish a connection among the Senkaku Islands, Japan's economic activity and supporting universal values. The Senkaku Islands are crucially important to secure Japan's sea lane. Japan's economy, which does not have natural resources, would be in danger should China's expansionism hinder the free flow of trade in the region. Therefore supporting universal values enables Japan to achieve both objectives of defending territorial integrity and economic prosperity because they legitimate security cooperation in the region among like-minded countries in security and economic areas.

Abe's perception that the sea is very important is in line with his ambition to contribute to the establishment of a peaceful and stable order in Asia-Pacific in the form of Trans-Pacific Partnership (TPP). Abe emphasizes Japan's foreign policy must be based on 'the freedom of navigation and freedom of overflight, that is important for the prosperity of the region. In order to protect that, rule of law must be complete and thorough. That is how I feel about it. So in that sense, we share universal values' (Abe 2016). Advancing the project of the TPP as a *universal values promoter* serves to stabilize sea lane and prevent China's unilateral change of status quo must be prevented. Abe's policies reveal that considering Japan's concerns about China's long-time interference with Japan's sovereignty, it is natural that Japan increased deterrence in the ECS to guarantee freedom of navigation which is essential for Japan's prosperity. This fundamental principle does not change to date as shown in Abe's address to the personnel of the JCG: 'The situation of the ocean areas surrounding our nation is more severe than ever [...] The future of Japan as a maritime nation will be uncertain without the Coast Guard' (Abe 2018).

At the same time, however, as mentioned-above, Abe does not take any significant measures to strengthen the control over the Senkaku Islands nor send Maritime Self Defense Forces' (MSDF) vessels to the adjacent waters. This indicates that Abe's Senkaku and China policies are composed of deterrence and diplomacy. In fact, it can be argued that Japan responded to China's military buildup and activities with restraint. Defense spending remained virtually flat and continued to amount to around 1% of GDP¹ during his second office term.

The concept Abe suggested during his first term of 'mutually beneficial relationship based on common strategic interests' (MOFA 2008) as a new basis for the relationship is also important to build trust through people's exchange, environmental and energy fields while shelving historical issues. The policy was meant as a guarantee of peaceful coexistence of Japan and China, the two largest and powerful countries in the region on the assumption that 'it is wrong to close down all aspects of the bilateral relationship because of a single issue' (Abe 2013c).

¹ See the website of the Peter G. Peterson Foundation: https://www.pgpf.org/chartarchive/0184_ally_defense_spending.

Abe ensured the audience in US Congress this point saying that: ‘I have absolutely no intention to climb up the escalation ladder. In fact, my government is investing more into people to people exchanges between Japan and China’ (Abe 2013b). My analysis reveals this moderate approach is taken by Abe and this shapes Abe’s NRC as a *realist who aims to avoid exacerbating diplomatic relations with the neighboring countries*. Abe’s attitude creates the expectation that he is supposed to decide to put aside the Senkaku Islands issue for a while not to affect other aspects of bilateral relations or other countries. It means that he gives priority to the economic relationship with China. Japanese and Chinese Gross Domestic Products (GDPs) account for 20% of the total GDP in the world (Howmuch.net 2018) and they are close economic partners. To continue economic cooperation, stable political relationship is necessary.

Thus it can be said that amid confrontation, Abe tries to improve ties with China - even marginally - intends to deal with the Senkaku issue ‘in a calm manner’ (Abe 2013b). Abe has pursued this policy since his first administration. In April 2007, Abe agreed with Chinese Premier Wen Jiabao to begin discussions for a direct communications link between the SDF and the Chinese military to avoid a clash in the waters and over the airspace of the ECS (Chicago Tribune 2015). After the interruption because of the 2012 nationalization, Abe and Xi agreed to make a ‘crisis management mechanism’ in November 2014 to prevent contingencies (Tiezzi 2014). It bore fruit in May 2018 when Abe and Chinese prime minister Li Keqiang agreed to establish a mechanism for their naval vessels to communicate at sea to avert maritime incidents, to establish a hotline between both countries’ defense authorities and to hold regular meetings between their defense officials every year. However, the mechanism did not cover the territorial waters around the Senkakus despite that the objective was to prevent contingencies related to the dispute by easing tension and building trust (Reuters 2018). Abe’s desire to establish a crisis management mechanism indicates that Japan’s control over the islands is not solid. However, while Abe chooses diplomatic means over coercion it does not mean he is ready to concede the territorial right to China. Abe insists ‘there is no room for negotiation over the Senkaku Islands’ because ‘there is no doubt that the Senkaku Islands are clearly an inherent part of the territory of Japan, in light of historical facts and based upon international law’ (Abe 2013d). When he said ‘rather than take a stance of not engaging in dialogue unless issues are resolved, we should engage in dialogue precisely because issues exist’ (Abe 2014) it does not mean that he has a motivation to solve the issue by negotiation. Rather, Abe’s statements and policies indicate that he always believed only ‘physical force incapable of being misunderstood’ (Abe 2013e: 130) could tame assertive China. He has so far taken a very strong position by denying the existence of the territorial dispute. Abe has refused to recognize the so-called consensus reached by previous Japanese and Chinese political leaders in the 1970s. Therefore, it can be said that Abe’s strategy related to the Senkakus does not aim to put forward actual progress of the resolution of the territorial dispute which both sides can be convinced, but rather to build a security environment which is in favor of Japan. As a result, this ambiguous mix of deterrence and diplomacy does not lead to any initiatives to start

territorial negotiation with China.

The US

The Japan-China islands dispute may involve the US because of its commitment to support Japan's position. Fundamentally, the US takes no position on these disputes, insisting only that they should be resolved peacefully through dialogue rather than force and then it only acknowledges that Japan administers over the islands since 1972 as President Obama said in the joint press conference in April 2014:

We stand together in calling for disputes in the region, including maritime issues, to be resolved peacefully through dialogue. [...] We don't take a position on final sovereignty determinations with respect to Senkakus, but historically they have been administered by Japan and we do not believe that they should be subject to change unilaterally (Obama 2014).

When China created an Air Defense Identification Zone (ADIZ) which includes the Senkaku Islands in November 2013, the US dispatched two B-52 bombers into China's claimed zone, indicating that the US had no intention to accept the change of the status quo in the ECS. Then, the US openly demonstrated support for Japan (The New York Times 2015). When Japan and the US revised Guidelines for Japan-US Defense Cooperation in 2015, they agreed to decide how to divide roles in defending remote islands including the Senkaku Islands in above-mentioned 'grey zone' situation. For the first time, the two countries showed a common reaction to China's maritime expansionism. The Guidelines for Japan-US Defense Cooperation stipulates about the Senkaku Islands that:

The Self-Defense Forces and the United States Armed Forces will conduct bilateral operations to counter ground attacks against Japan by ground, air, maritime, or amphibious forces. The Self-Defense Forces will have primary responsibility for conducting operations to prevent and repel ground attacks, including those against islands. If the need arises, the Self-Defense Forces will conduct operations to retake an island (Ministry of Defense 2015).

However, the US does not want the East Asian order will be unstable. In addition to the US position that it mentions Japan's administrative right, not territorial right, the guideline does not indicate US concrete support for remote islands defense (Haruna 2015). So, Abe's NRC of protecting Japanese sovereignty which takes any measures to reinforce its effective control over the Senkaku Islands is problematic for the US.

For the US, not only Japan but also China is important and then a hardline position would go against Obama's rebalance policy that includes 'forging deeper partnerships with emerging powers, pursuing a stable and constructive relationship' (The White House 2013). National Security Adviser Susan Rice also expressed the US intention to work toward 'a new model of major power relations' (Rice 2013) during a speech at Georgetown University in November 2013.

In fact, while Obama reaffirmed the commitment to Japan over the Senkaku Islands, saying 'our treaty commitment to Japan's security is absolute, and Article 5 covers all territories under Japan's administration, including the Senkaku Islands'

when he discussed with Abe in 24 April 2014, he did not draw a red line and refrained from explicitly promising that the US would fight with Japan to the end to protect Japanese territory (Obama 2014). In the joint conference, Obama expected Abe to be ‘not escalating the situation, keeping the rhetoric low, not taking provocative actions, and trying to determine how both Japan and China can work cooperatively together’ (Obama 2014). In questions and answers after the discussion, he also noted that: ‘At the same time, as I have said directly to the Prime Minister that it would be a profound mistake to continue to see escalation around this issue rather than dialogue and confidence-building measures between Japan and China’ (Obama 2014).

Although the Trump administration comes from the Republic Party in 2017, whose position is different from that of the Obama administration, it basically takes the same path. President Donald Trump affirmed the mutual security treaty covered the Senkaku Islands in the Japan-US joint statement and vice-president Mike Pence also said they are ‘administered by Japan’ (Pence 2018). Like the Obama administration, they did not mention more than this vague expression, indicating that the US and Japan’s attempt to recover the territory from China in a full-scale conflict in the case of China’s occupation of the islands is unlikely in Trump’s era too.

The message is that the US seeks positive and stable relations with China and encourages Japan to manage the conflict and to put aside the problem because the US does not want to sacrifice the US-China relations for the Senkaku Islands. Although Obama put emphasis on the mutual security treaty, he did not hide the US’s desire that it wanted to deepen the relations with China economically and politically, indicating he did not consider as seriously as Abe the issue of Japanese territorial integrity. Under current situations in East Asia where Japan and China do not trust each other, Abe’s nationalism should become an issue for the US. If Abe’s hard policy leads Japan to needlessly provoke China over the Senkaku Islands, it undermines the US’s confidence in Japan’s reliability as an ally. In this sense, there is role inconsistency between Japan and the US on the point of the political relations with China, at least concerning the specific issue of the Senkaku Islands.

China

The territorial dispute of the Senkaku Islands can trace back to the 19th Century when China was invaded by great powers. China asserts that Japan’s annexation of Senkaku Islands was a result of the Sino-Japanese war from 1894 to 1895 and it was a premonition of Japan’s invasion in the 20th century (Berger 2014: 10).

Nowadays, China refuses to be regarded as taking an expansionist policy. Rather, it perceives that claiming over the Senkaku Islands is irredentism to overcome the past bitter history. So, China regards the territorial dispute as a historical issue as president Xi Jinping and Liu Xiaoming, Chinese ambassador to the UK, respectively said in the following dialogue and interview:

The Japanese side ought to face up to history and reality, take practical steps and work hard with China to find an effective way to appropriately resolve and manage the issue via dialogue and consultations (Xi 2013)

Diaoyu Dao has been China's territory since ancient times. It was not until the China-Japan War about 120 years ago that Japan had seized it illegally (Liu 2014)

In other words, China questions Japan's legitimacy of the acquisition. As for the escalation of the dispute since 2012, China attributes the responsibility to Japan. From China's perspective, its behavior is absolved of blame. China just reacts to Japan's provocation as Foreign Ministry Spokesperson Hong Lei said in a press conference that 'Japan who broke the status quo of shelving the dispute over the Diaoyu Islands two years ago. [...] China is unswerving in safeguarding its territorial sovereignty' (Hong 2014a). China's objective for the moment is to force Japan to acknowledge there is a territorial dispute between them. Then, China increased its naval and aerial presence in the ECS. In December 2012 China's maritime authority's airplane violated the territorial sky near the Senkakus for the first time, and in January 2013, a Chinese frigate directed fire control radar, which was used for aiming at a target for missiles, on a MSDF's ship near the Senkaku Islands. In addition, the fact that the ADIZ set by China in November of the year contained the sky over the islands escalated the dispute. In the leadership's view, if China is unable or unwilling to act to defend its 'core interests' (The Japan Times 2013), it can not expect others to respect them. The territorial dispute is related to the Chinese communist government's legitimacy to defeat imperial Japan and China cannot compromise in terms of China's nationalism (Yee 2011: 184). China's expectation of Japan increased after the meeting of Abe and Xi in November 2014 because China perceived Japan acknowledged China's stance over the issue. This perception was based on the document about 'the four point consensus'² released in Chinese media Xinhua before the meeting, which stipulated in Chinese media Xinhua that China and Japan 'acknowledged that different positions exist between them regarding the tensions which have emerged in recent years' over the Senkaku Islands³ (Tiezzi 2014). In fact, China increased the number of big public vessels from 80 in 2014 to 120 in 2015, which surpassed the number of Japan's patrol vessels. In 2016, a Chinese Navy frigate entered the contiguous zone near the Senkakus for the first time. Such increase in military activities is clearly an attempt to undermine Japan's claim (Ankit 2016).

However, regardless of China's tougher Japan policy, it does not want to wage war over the territorial dispute nor use force to change Japan's control over the Senkaku Islands. While keeping Japan in check, the government is keeping tight control over its army to avoid an armed conflict (Abb 2016). China wants to make not zero-sum but a plus-sum relationship with Japan. China puts emphasis on dialogue and communication as instruments for building up trust and reducing misunderstanding. This is reflected in a Chinese ambassador to Japan Cheng Yonghua's interview with Asahi Shimbun newspaper, in which he said that: 'The two sides should enhance dialogues to prevent

² The consensus also stipulated 'gradually resume political, diplomatic, and security dialogue through various multilateral and bilateral channels' for the crisis management and thus it can be said that the on the crisis management in 2018 above-mentioned agreement was a result of the stipulation.

³ Ministry of Foreign Affairs (MOFA) in Japan denies this view on the website (MOFA 2016).

unpredictable situation from emerging' (Cheng 2013), referring to the necessity of a communication mechanism to establish a relationship of trust. Since November 2014, when Xi and Abe met for the first time, China has supported the bilateral cooperation to institutionalize dialogue and consultation by crisis management mechanism so that contingencies can be prevented (BBC 2014). Like Japan, the Chinese government values the importance of the relationship and supports sustained economic, cultural, and governmental exchanges despite the high tension in Sino-Japanese relations. This is because China's top priority is its economic development and does not want to adhere to the territorial dispute to the extent that it has negative impact on the economic relations with Japan which are described in so-called the 'four political documents' composed of the China-Japan Joint Statement inked in 1972, the China-Japan Treaty of Peace and Friendship of 1978, the China-Japan Joint Declaration of 1998 and a joint statement on advancing strategic and mutually beneficial relations that was signed in 2008 (Tiezzi 2014) or 'the foundation of bilateral relationship' (Deng 2014). In this term, China expects Japan to work together to make more contribution to economic prosperity in the region. This stance is confirmed in Ambassador Cheng in the same interview:

Based on the four political documents between China and Japan, China is willing to continue to push forward the continuous development of China-Japan strategic and mutually beneficial relations in line with the spirit of learning from history and facing the future (Cheng 2013).

When Nikai Toshihiro, secretary general of Abe's Liberal Democratic Party, visited China with hundreds of Japanese businessmen and met with Xi in May 2015, Xi delivered a speech with reference to four political documents stating that 'the China-Japan friendship is rooted in the people, and the future of the bilateral relationship is in the hand of the people of the two countries [...] We stand ready to work with the Japanese side to advance the neighborly friendship and cooperation between the two countries on the basis of the four political documents' (Xi 2015). Xi's thinking is characterized by a preference for enduring and stable economic development, indicating his interest in ensuring peace and friendship and expectation that Japan would take a cautious action in the ECS. This is precisely why China opposed any of Japan's actions that strengthened the control over the Senkaku Islands as Foreign Ministry Spokesperson Hong said in his press conference:

Both sides need to review every item on the four political documents reached between China and Japan, embrace once again the principles and spirit that served as the basis for the normalization of China-Japan diplomatic ties. At the present, both sides need to properly handle historical issues and issues on Diaoyu Islands, and remove the political obstacles. We urge the Japanese government to take concrete actions and create enabling environment for the improvement of bilateral ties (Hong 2014b).

From the above, it can be said Japan-China relationship is based on pragmatism in contrast to the first impression of belligerence because the two governments are aware of the danger that the dispute may spiral out of control and become a military

confrontation, which would greatly harm their economic involvement and cooperation. If Japan moves to strengthen the control over the Senkaku Islands, it can be regarded by Chiba that Japan does not observe the four political documents and the four point consensus made in November 2014 because putting aside the territorial issue for their peaceful coexistence is part of the basis of Japan-China relations since restoration of diplomatic ties from China's perspective. For the moment, China wants to maintain stable relations with Japan as Xi said in the meeting with Abe in October 2018 that Japan-China relations were now 'back to a normal track' and 'under the new situation, our interdependence with each other has deepened. Also, we are sharing more common interests and concerns in multilateral and wider areas' (Xi 2018). However, while cooperating with Japan economically, China does not intend at all to make a concession for its territorial right. China did not send ships after the meeting for a while but the official vessels entered again the contiguous zone and territorial waters near the Senkaku Islands in November 2018.

Nevertheless, it seems unlikely that China is ready to take the risk to disturb the status quo seriously as long as the Abe administration handles with the sensitive issue properly.

Conclusion

Abe feels China's threat seriously and continues to be engaged in external balancing, most importantly by strengthening the Japan-US military alliance. The disputed Senkaku Islands are related to Japan's protection of key sea lanes where Japanese ships must remain free to navigate. As long as Japan depends on free trade, freedom of navigation is indispensable and prevention of China's expansionism or maintaining the status quo is an important strategy for Japan. So, Abe cannot easily compromise on the dispute. It means that Japan cannot meet China's expectation of giving up the territorial right. This policy indicates Abe's NRC of *protector of Japanese sovereignty* and *promotor of universal values* are closely connected. It is the same as China, which does not want an armed conflict because of the territorial dispute but has to firmly react to Japan's move for domestic reason.

It means Abe faces constant difficulty in managing his own NRC and foreign role expectations. Abe wants to strengthen the administrative control over the Senkaku Islands to make China renounce the claim but lacks support of the US and other friendly countries. They generally welcome Japan's foreign policy under Abe. They relish its more proactive stance in security matters but they do not want Japan to confront China on the issue. This article shows that there is no prospect of settlement of the dispute during the Abe administration. As Abe perceives it is difficult to strengthen the effective control, he reinforces the JCG and the SDF's defense capability at least to secure Japan's sovereignty while preventing the dispute from affecting economic and other bilateral relations.

There were no statements from him about specific action over the islands other than repeated phrases emphasizing the need for protecting the sovereignty. In fact, as a *realist who aims to avoid exacerbating diplomatic relations with the neighboring*

countries, Abe has not allowed anyone to enter the islands, to conduct research and to construct anything on the site. He has skillfully made the islands unlikely to cause a conflict with China nor its strategic partners. If he had strengthened the control of the islands by conducting policies such as stationing civil servants, the divide between NRC and role expectations would have increased. As a result, it would have made his running of government extremely difficult. In the worst case, the failure of the management would have led a military conflict. At the moment, there is no country rushing to resolve the islands dispute in the near future nor a creative compromise from any of them. Although both Abe and Xi do not concede their territorial right, they seem to agree to shelve the ownership issue to an indefinite future and the US welcomes this.

References

- Abb, P. (2016). China's Foreign Policy Think Tanks: Institutional Evolution and Changing Roles. In Zhao, S (Ed), *The Making of China's Foreign Policy in the 21st century: Historical Sources, Institutions/Players, and Perceptions of Power Relations* (pp. 531-533). Routledge.
- Abe, S. (2012a). *Press Conference by Prime Minister Shinzo Abe*. Kantei. 26 December. https://japan.kantei.go.jp/96_abe/statement/201212/26kaiken_e.html. Accessed on 10 September 2017.
- Abe, S. (2012b). *Asia's Democratic Security Diamond*. Project Syndicate. <https://www.project-syndicate.org/commentary/a-strategic-alliance-for-japan-and-india-by-shinzo-abe?barrier=accessreg>. Accessed 10 January 2016.
- Abe, S. (2013a). *Transcript of interview with Japanese Prime Minister Shinzo Abe*. The Washington Post. 20 February. <https://www.washingtonpost.com>. Accessed on 22 September 2017.
- Abe, S. (2013b). *Remarks by President Obama and Prime Minister Abe of Japan After Bilateral Meeting*. 22 February. <https://obamawhitehouse.archives.gov/the-press-office/2013/02/22/remarks-president-obama-and-prime-minister-abe-japan-after-bilateral-mee>. Accessed on 2 October 2017.
- Abe, S. (2013c). *Japan Is Back A Conversation With Shinzo Abe*. Foreign Affairs. July/August. <https://www.foreignaffairs.com/interviews/2013-05-16/japan-back>. Accessed on 4 November 2017.
- Abe, S. (2013d). *Policy Speech by Prime Minister Shinzo Abe to the 183rd Session of the Diet*. 28 February. https://japan.kantei.go.jp/96_abe/statement/201302/28siseuhousin_e.html. Accessed on 1 November 2018.
- Abe, S. (2013e). Atarashii kuni e [Toward a New Country]. *Bungei Shunju* (1), 124-133.
- Abe, S. (2014). *Policy Speech by Prime Minister Shinzo Abe to the 186th Session of the Diet*. 24 January. https://japan.kantei.go.jp/96_abe/statement/201401/24siseihousin_e.html. Accessed on 3 November 2018.
- Abe, S. (2016). *PM statement at press conference with Japanese Prime Minister Abe*. 5 May. <https://www.gov.uk/government/speeches/pm-statement-at-press-conference-with-japanese-prime-minister-abe-5-may-2016>. Accessed on 11 December 2017.
- Abe, S. (2018). *Abe urges Coast Guard to fulfill duties to protect nation's territorial waters*.

- 20 May. <https://www.japantimes.co.jp/news/2018/05/20/national/abe-urges-coast-guard-fulfill-duties-protect-nations-territorial-waters/>. Accessed on 12 October 2018.
- Anami, Y. (2012). *Japan-China Discord and Cooperation over East China Sea*. Discuss Japan – Japan Foreign Policy Forum. <https://www.japanpolicyforum.jp/archives/diplomacy/pt20121108175540.html>. Accessed on 4 November 2018.
- Ankit, P. (2016). *A First: Chinese Naval Vessel Enters Senkaku Contiguous Zone in East China Sea*. The Diplomat. <https://thediplomat.com/2016/06/a-first-chinese-naval-vessel-enters-senkaku-contiguous-zone-in-east-china-sea/>.
- Asahi Shimbun. (2017). *Ishigakijima, Senkaku keibi he yosaika Rikujojeitai ya Missile haibi keikaku Ishigaki islands is becoming fortified to secure the Senkaku islands The Deployment of the Ground Self-Defense Force and Missiles*. 10 September. <https://www.asahi.com/articles/ASK990FB4K98UTFK01Z.html>. Accessed on 10 December 2018.
- BBC. (2014). *China and Japan smooth over East China Sea island row*. 7 November. <https://www.bbc.com/news/world-asia-29947967>. Accessed on 9 October 2018.
- Berger, U. T. (2014). *Abe's Perilous Patriotism: Why Japan's New Nationalism Still Creates Problems for the Region and the U.S.-Japanese Alliance*. WA: Center for Strategic & International Studies. https://cisprod.s3.amazonaws.com/s3fspublic/legacy_files/files/publication/141003_Berger_AbePerilousPatriotism_Web.pdf. Accessed on 13 September 2016.
- Cheng, Y. (2013). *Ambassador to Japan Cheng Yonghua Gives an Interview to the Asahi Shimbun*. Asahi Shimbun. 6 December. http://www.fmprc.gov.cn/mfa_eng/wjb_663304/zwjg_665342/zwbd_665378/t1107496.shtml Accessed on 10 October 2017.
- Chicago Tribune. (2015). *Talks on Japan-China maritime liaison mechanism deadlock*. 5 October. <https://www.chicagotribune.com/sns-wp-japan-china-1da1e190-6b63-11e5-9bfe-e59f5e244f92-20151005-story.html>. Accessed on 7 January 2019.
- Chung, C. P. (2004). *Domestic politics, international bargaining, and China's territorial disputes*. NY: Routledge.
- Clint, R. (2014). *Japan to Build Defense Camps Near Disputed Islands*. The Diplomat. <https://thediplomat.com/2014/05/japan-to-build-defense-camps-near-disputed-islands/>. Accessed on 2 January 2019.
- Danner, L. (2014). Securitization and De-securitization in the Diaoyu/Senkaku Islands Territorial Dispute. *Journal of Alternative Perspectives in the Social Science*, 6 (2), 219-247.
- Deng, X. (2014). *Reversing the Wheel of History Must End up in Failure!*. Ministry of Foreign Affairs of the People's Republic of China. 15 April. http://www.fmprc.gov.cn/mfa_eng/wjb_663304/zwjg_665342/zwbd_665378/t1147369.shtml. Accessed on 2 January 2018.
- Drifte, R. (2014). "The Japan-China Confrontation Over the Senkaku/Diaoyu Islands: Between 'Shelving' and 'Dispute Escalation'". *The Asia-Pacific Journal*, 12 (30/3). <http://apjff.org/2014/12/30/Reinhard-Drifte/4154/article.html>. Accessed on 15 November 2016.
- Gupta, S. (2014). *China-Japan relations: creating a 'sea of peace, cooperation and friendship'*. East Asia Forum. <http://www.eastasiaforum.org/2014/10/26/china-japan-relations-creating-a-sea-of-peace-cooperation-and-friendship/>. Accessed on 30 October 2018.

- Haruna, M. (2015). *Kamen no nichibe domei: Gaiko Kimitsu Bunsho ga Akasu Shinjitsu (The Masked Japan-US Alliance: The Truth Revealed by the Declassified US Diplomatic Documents)*. Tokyo: Bungeu Shunju Publisher.
- Hasebe, Y. (2017). *What comes after Japan's constitutional amendment?*. East Asia Forum. 21 July. <http://www.eastasiaforum.org/2017/07/21/what-comes-after-japans-constitutional-amendment/>. Accessed on 10 July 2017.
- Hirata, K. (2016). Role Theory and Japanese Security Policy. In Cantir, C & Kaarbo, J (Eds.), *Domestic Role Contestation, Foreign Policy, and International Relations* (pp. 55- 71). NY: Routledge.
- Holsti, K. J. (1970). National Role Conceptions in the Study of Foreign Policy. *International Studies Quarterly*, 14 (3), 233-309.
- Hong, L. (2014a). *Foreign Ministry Spokesperson Hong Lei's Regular Press Conference*. 28 March. Ministry of Foreign Affairs of the People's Republic of China. http://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/t1143219.shtml. Accessed on 20 November 2017.
- Hong, L. (2014b). *Foreign Ministry Spokesperson Hong Lei's Regular Press Conference*. Ministry of Foreign Affairs of the People's Republic of China. 6 June. https://www.fmprc.gov.cn/mfa_eng/xwfw_665399/s2510_665401/t1163054.shtml. Accessed on 20 November 2017.
- Hosaka, M & Togo, K. (2012). *Nippon no ryodo mondai – Hoppo yonto, takeshima, senkaku shoto [Japan's territorial disputes – Northern territories, Takeshima, the Senkaku Islands]*. Tokyo: Kadokawa Shoten Publisher.
- Howmuch.net. (2018). *Visualize the Entire Global Economy in One Chart*. 10 October 2018. <https://howmuch.net/articles/the-world-economy-2017>. Accessed on 29 December 2018.
- Hughes, C. (2015). *Japan's Foreign and Security Policy Under the 'Abe Doctrine'*. Hampshire, NY: Palgrave Macmillan.
- Liu, X. (2014). *Ambassador Liu Xiaoming talks to ITV News at Ten*. 6 January. <http://www.chinese-embassy.org.uk/eng/ambassador/t1114885.htm>. Accessed on 10 October 2017.
- Maslow, S. (2016). China and Japan Partner, rival, and enemy?. In Harnisch, S., Bersick, S & Gottwald, J-C (Eds.), *China's International Roles: Challenging or Supporting International Order?* (pp. 188-206). NY: Routledge.
- Maull, W. H. (2011). Hegemony reconstructed? America's role conception and its "leadership" within its core alliances. In Harnisch, S., Frank, C & Maull, H. W (Eds.), *Role Theory in International Relations: Approaches and Analyses* (pp. 167-193). NY: Routledge.
- Ministry of Defense. (2015). *The Guidelines for Japan-U.S. Defense Cooperation*. http://www.mod.go.jp/e/d_act/anpo/shishin_20150427e.html. Accessed on 7 October 2018.
- Ministry of Foreign Affairs. (2008). *Joint Statement between the Government of Japan and the Government of the People's Republic of China on Comprehensive Promotion of a "Mutually Beneficial Relationship Based on Common Strategic Interests"*. <http://www.mofa.go.jp/region/asia-paci/china/joint0805.html>. Accessed on 10 October 2016.
- Ministry of Foreign Affairs. (2015). *U.S.-Japan Joint Statement: The United States and Japan: Shaping the Future of the Asia-Pacific and Beyond*. http://www.mofa.go.jp/na/na1/us/page24e_000045.html. Accessed on 3 October 2017.

- Ministry of Foreign Affairs. (2016). *Senkaku Islands*. <https://www.mofa.go.jp/region/asia-paci/senkaku/index.html>. Accessed on 19 September 2018.
- Obama, B. (2014). *Joint Press Conference with President Obama and Prime Minister Abe of Japan*. The White House. 24 April. <https://obamawhitehouse.archives.gov/the-press-office/2014/04/24/joint-press-conference-president-obama-and-prime-minister-abe-japan>. Accessed on 2 October 2017.
- Pence, M. (2018). *Vice President Mike Pence's Remarks on the Administration's Policy Towards China*. 4 October. <https://www.hudson.org/events/1610-vice-president-mike-pence-s-remarks-on-the-administration-s-policy-towards-china102018>. Accessed on 3 December 2018.
- Peter G. Peterson Foundation. (2017). *U.S. Defense Spending Compared to Key Allies*. https://www.pgpf.org/chart-archive/0184_ally_defense_spending. Accessed on 7 March 2018.
- Prashanth, P. (2015). *Philippines, Australia to Hold Joint Military Exercises*. The Diplomat. <https://thediplomat.com/2015/09/australia-philippines-to-hold-joint-military-exercises/>. Accessed on 4 January 2019.
- Ramos-Mrosovsky, C. (2008). International Law's Unhelpful Role in the Senkaku Islands. *University of Pennsylvania Journal of International Law*, 29 (4), pp.903-946.
- Reuters. (2018). *Japan and China agree on security hotline after a decade of talks*. 9 May. <https://www.reuters.com/article/us-japan-china-hotline/japan-and-china-agree-on-security-hotline-after-a-decade-of-talks-idUSKBN1IA17I>. Accessed on 4 December 2018.
- Rice, S. (2013). *Remarks As Prepared for Delivery by National Security Advisor Susan E. Rice*. The White House. 21 November. <https://obamawhitehouse.archives.gov/the-press-office/2013/11/21/remarks-prepared-delivery-national-security-advisor-susan-e-rice>. Accessed on 2 October 2017.
- The Japan Times. (2012). *Abe pauses on Senkakus postings*. 23 December. <https://www.japantimes.co.jp/news/2012/12/23/national/abe-pauses-on-senkakus-postings/>. Accessed on 18 November 2017.
- The Japan Times. (2013). *China officially labels Senkakus a 'core interest'*. 27 April. <https://www.japantimes.co.jp/news/2013/04/27/national/china-officially-labels-senkakus-a-core-interest/#.WplfemZjZp8>. Accessed on 29 November 2017.
- The Japan Times. (2016). *Japan Coast Guard to spend 27% of budget on boosting Senkaku surveillance in 2017*. 22 December. <https://www.japantimes.co.jp/news/2016/12/22/national/japan-coast-guard-bolstered-defend-east-china-sea-islets/#.XEvey3AOqA>. Accessed on 22 December 2018.
- The New York Times. (2015). *China Says It Could Set Up Air Defense Zone in South China Sea*. 31 May. <https://www.nytimes.com/2015/06/01/world/asia/china-says-it-could-set-up-air-defense-zone-in-south-china-sea.html>. Accessed on 1 December 2018.
- The White House. (2013). *Resourcing the Rebalance toward the Asia-Pacific Region*. <https://obamawhitehouse.archives.gov/blog/2013/04/12/resourcing-rebalance-toward-asia-pacific-region>. Accessed on 2 October 2017.
- Tiezzi, S. (2014). *A China-Japan Breakthrough: A Primer on Their 4 Point Consensus*. The Diplomat. 7 November 2014. <https://thediplomat.com/2014/11/a-china-japan-breakthrough-a-primer-on-their-4-point-consensus/>. Accessed on 20 December 2018.
- Thies, G. C. (2014). Role Theory and Foreign Policy Analysis in Latin America. *Foreign Policy*

Analysis, 0, 1-20.

- Xi, J. (2013). *China, Japan move to cool down territorial dispute*. Reuters. 25 January. <https://www.reuters.com/article/us-china-japan/china-japan-move-to-cool-down-territorial-dispute-idUSBRE90O06S20130125>. Accessed on 2 September 2018.
- Xi, J. (2015). *China-Japan friendship based on people's exchanges*. China Daily. 25 May. http://www.chinadaily.com.cn/opinion/2015-05/25/content_20805839.htm. Accessed on 3 November 2017.
- Xi, J. (2018). *Abe and Xi agree to promote new economic cooperation amid U.S. trade war fears*. The Japan Times. 26 October. <https://www.japantimes.co.jp/news/2018/10/26/national/politics-diplomacy/shinzo-abe-li-keqiang-agree-promote-economic-cooperation-amid-u-s-china-trade-war/#.XDafyS3APGK>. Accessed on 13 December 2018.
- Yee, A. (2011). Maritime Territorial Disputes in East Asia: A Comparative Analysis of the South China Sea and the East China Sea. *Journal of Current Chinese Affairs*, 40 (2), 165-193.
- Zhong, Y. (2012). *China's Claim to Diaoyu Island Chain Indisputable*. Beijing Review Exclusive. http://www.bjreview.com.cn/special/2012-08/17/content_476764_3.htm. Accessed on 12 December 2018.

Does Aid Work in Conflict? Analysis of Pakistan

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Abstract The effectiveness of aid, among many factors, depends upon the prevailing law and order situation in the recipient economy. Despite receiving relatively large aid inflows, the economy of Pakistan has not performed well and aid effectiveness is often subject to debate. This study has analyzed the role of conflict in explaining economic growth process and aid effectiveness in case of Pakistan, I have constructed conflict index to gauge the role of conflict in Pakistan economy. By using Generalized Method of Moments (GMM) technique and fully modified OLS, the results establish negative association between aid and economic growth in Pakistan. Moreover, through construction of aid-conflict interactive term, it has been established that aid provision in presence of conflict remains ineffectual. Furthermore, results have highlighted that aid made its way to finance arms imports in Pakistan. This study suggests that Pakistan may not be able to vail gains from aid without elimination of conflict.

Keywords: Foreign aid; Conflict; Interstate and Intrastate conflict; Arms trade; Economic Growth; Generalized Method of Moments (GMM); Principal Component Analysis; Fully modified OLS.

JEL Classification: D74; F51; F35; O4

1. Introduction

The rationale of aid is more promising than its fallouts. Cheneray and Strout (1966) highlight the importance of aid in reducing twin deficits of developing countries. It implies that by reducing saving-investment gap country can reduce its trade gap as increase in investment results in higher production of exportable items. Thus, higher exports increase per capita income and growth. However, this aid-growth rapport is not that simple. Literature has highlighted that beside promoting economic growth aid plays vital role in making peace or fueling conflict, too. Moreover, purpose of aid

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also determines consequences and effectiveness of aid. Since WW II, aid to developing countries has increased significantly. Initially, aid was provided to mitigate the negative aftershocks of war but in few states aid was provided for military support. The aims of donor countries and needs of recipients differed over the track of aid.

Currently, most of the aid recipient countries are also in list of fragile states. These countries are fragile because either they are running intrastate conflict or interstate. Many of them are facing terrorism and their economies have borne its cost. After the incident of 9/11, foreign aid has increased significantly to South Asia (especially, to Pakistan) and Middle Eastern conflict zones (Bortolletto, 2010 and Sharp, 2015). Countries including Iraq, Syria, Egypt and Jordan, who are also conflict prone territories with low economic growth are among the top recipients of aid. In spite of high foreign aid inflows to these states, average economic growth rate is as low as 2.1%. Here, Pakistan is no exception, high aid inflows failed to reduce twin deficit of Pakistan and growth rate also remained low. Though Pakistan has been part of different programs of IMF since 1958 and received billions of dollars' aid since its making, outcomes and effectiveness of aid are still under question. This study questioned the effectiveness of aid in existence of conflict in Pakistan.

Considering that the rationale behind foreign assistance is to provide funds to low saving economies who are trapped in vicious circle of low economic growth, the situation gets worse when these low saving-low capital formation countries face any internal or external conflict. The countries who run a conflict may not be able to divert the foreign inflows to fill their saving-investment gap. Thus, this *aid fungibility* makes the aid ineffective to attain economic growth.

An ample literature on Pakistan's economic growth and foreign aid association concludes that aid is not effective in case of Pakistan. Researches have highlighted underlying factors who hinders performance of aid, absence of sound macroeconomic policies, corruption, volatile aid inflows and aid fungibility are the leading determinants of aid ineffectiveness in case of Pakistan (e.g. Ashfaq and Ahmad 2005, Khan and Ahmed 2007, Javid and Qayyum 2011 and Mansoor et al. 2017).

Objectives, Contribution and Significance of the Study

Existing literature on aid effectiveness in Pakistan has ignored the role of conflict. This study is adding to literature by highlighting the role of conflict in tracing effectiveness of aid in Pakistan from 1972-2017. However, conflict is measured through construction of an index which includes number of terrorist attacks, bomb blasts, unemployment rate, public expenditures on education, inter and intra state conflict, weapons trade, burden of refugees, civilian and military casualties, all these variables have included in index with reference to literature. Moreover, this study has empirically assessed the impact of conflict-associated aid inflows on growth through construction of aid-conflict interactive term. By employing GMM methodology and fully modified OLS, effects of interstate, intrastate and aid inflows have estimated on arms imports of Pakistan.

The organization of study is as follows: second part of article presents literature on aid-growth, conflict-growth and aid-conflict dynamics. In third section, I have

discussed historical trends of aid inflows and conflict existence in Pakistan. the model and estimation methodology along with construction of conflict index have presented in section four followed by results and policy implication in section five.

2. Literature on Aid, Growth and Conflict Dynamics

Aid is said to be effective if it increases economic growth and reduces twin deficit of economy. Moreover, aid reducing poverty and mitigating income inequality also considers effective. Literature is inconclusive in case of aid-growth relationship. Results and impacts of foreign aid on growth varies by country and type of aid. Foreign aid promotes economic growth and helps economy to attain stable socio-economic indicators like education, mortality rate, poverty reduction etc. Moreover, foreign aid increases investment, savings and GDP per capita in developing countries of Sub Saharan Africa and Central Asia (Levy 1988, Khan & Hoshino 1992, Gomance et al. 2005, Dollar & Levin 2006). A few studies have mentioned Botswana, South Korea and Taiwan as success stories of aid. Whereas ample literature has underlined the conditional factors in making aid effective; sound macroeconomic policies, non-corruption environment, democracy and financial openness are conditions in which aid can be effective (Boone 1996, Burnside & Dollar 1997,2000, Javid and Qayyum 2009 etc). Though intuitively its appealing that sound macroeconomic policy environment and financial openness helps in achieving goals of aid, Durbarry (1998) Hansen & Tarp (1999, 2001) have established that aid effectiveness is independent of policies and type of government. Many researches have added to existing literature by underlining that aid becomes ineffective if aid flows are volatile or aid has been provided to corrupt governing bodies (Lensink and Morrissy 2000, Hudson and Mosely 2008, Arellano et al 2009, Mansoor et al 2017 etc).

Pioneer work on conflict-growth relationship by Barro (1991) maintains that political instability increases intrastate arms conflict, this conflict hinders economic growth through destabilization of socio-economic indicators. Studies have found bilateral causality between conflict and growth. Stable growth and high per capita income make people and pressure groups fight for bigger chunk and this result in intrastate conflict, in result conflict increases as people again get into fight over economic means for survival (Keen 2000, Bates 2001).

Studies have maintained that wealth and abundant natural resources can erupt conflict. Olsson (2006) find significant positive relationship between natural resources and conflict in Botswana. Similarly, Wizarat (2014) empirically establishes that natural resources become curse for developing countries as power greedy groups and international agencies create conflict in these countries to get possession over natural resources. Hence, conflict emerged for possession and rent seeking hampers economic growth of developing countries.

On other way round, Homer-Dixon (1994) and Fearon and Laitin (2002) establish that societies with wealth and noteworthy financial assets can invest to have better management system for asset protection so that violent conflict decreases or remained under control with increase in wealth. Collier and Hoeffler (1998, 2004) find a non-

linear relationship between economic resources and the risk of armed conflicts. Using Probit and tobit regressions, they attribute natural resources as a potential source of armed conflict. Initially, conflict and risk of war increases with exploration of natural resources, but risk of further increase in conflict decreases when income inequality decreases with increase in per capita income derived from these natural resources.

A line of research has found that aid triggers conflict and type of aid also plays its role. Funds provided under military aid umbrella are more likely to prompt inter as well as interstate conflict. Considering that aid is fungible, funds and grants to conflict prone economies can further increase the risk of conflict as governments or military powers may use this funding to curb conflict which can respond back. Aiding intrastate conflict affected country can have even severe consequences if aid makes its way to military expenditure rather diverted to reduce twin gap of economy. This may increase interstate or regional conflict because war of arms and power among neighboring country increases with increase in military aid [Addison and Murshed 2001, Collier and Hoeffler 2007, Collier and Benedikt 2009]. For instance, figures show that nearly 40 percent of military expenditure in African countries have been financed through aid which resulted in up surging conflict and low economic growth.

International committee of the Red Cross (ICRC) has added to the fact that after cold war large surplus of weapons was transferred to developing countries as a part of direct or military aid which result in inter and intra-state conflict increment. In context to military support and coalition support, many developing countries received heavy amount of armament from arms exporting countries and this transfer increased regional disparities and imbalance of power. Historically, power countries (US and Soviet Union) transferred weapons to Iran, Iraq, Syria and Egypt after the World War II under the heading of military aid but this transfer fueled inter and intra state conflicts in these countries. Factually, aid related to military expenditures, food, transportation and supplies increased the level of conflict and violence in Chechnya, Tajikistan, and Somalia, too (e.g. Kinsella 1994, Anderson 1999).

Recent literature on foreign aid and conflict nexus shows that funds provision to conflict prone countries lead to increase military fatalities (Tao et al, 2016). Strandow et al. (2013) also find that aid promotes conflict and results in increment of military fatalities by as much as 138 percent. On the contrary, Collier and Hoeffler (2002) maintain in past that aid can reduce probability of conflict by 30 percent within five years. Another line of literature has highlighted that the role of aid and conflict in process of democracy. Conflict may trigger during process of democratization (Mansfield and Snyder 1997, Snyder 2000) but aid for democracy can reduce intrastate conflict because aid can finance all promises related to infrastructure development, job creation, access to financial resources and openness [e.g. Fearon 1998, Narang and Nelson 2009, Savun and Tirone 2011]. Berman et al (2011) also supports the phenomena of aiding democracy to reduce conflict, they assess a case study of Iraq in post 9/11 scenario and uphold that improved service provision reduces insurgent violence because aid used by the public sector for provision of public goods resulted in better literacy rate and living standard.

3. Dynamics of Aid Inflow to Pakistan and Conflict Existence

Most of the aid inflows to Pakistan have come from bilateral sources and major contribution has been made by the USA. Anwar and Michaelowa (2004) calculated that more than 72 percent of official development assistance to Pakistan has come from bilateral sources, and out of which nearly half was provided by a single donor i.e. USA. Since 9/11, Pakistan has received nearly USD 32 billion from USA and almost 60 percent of this aid comes under security funds which Pakistan utilized to battle conflict.

Unlike aid flows to other countries, the aid in Pakistan seems to be dependent more on geo-political factors than underlying development needs. Considering large share of aid from bilateral source, it is argued that aid in Pakistan appears to be dependent more on security and military consideration than underlying economic situation or development needs. An analysis of period in which high aid inflows were received also support this assertion. For example, the aid inflow during 1960s and 1970s was the result of Pakistan's signing of mutual defense assistance agreements¹ with USA in pre cold war era. Similarly, aid inflow during 1980s can be contextualized in perspective of Afghanistan war. During 1990s, the USA and other multilateral donor agencies placed sanctions on economic assistance to Pakistan as Afghan war ended. Aid inflows to Pakistan dropped further after execution of nuclear tests in May 1998 and overthrowing of democratically elected government by the military in October 1999. Being under several sanctions from USA, Pakistan consequently received lowest average annual aid during 1990s.

However, the sanctions were waived after incident of 9/11 attacks and Pakistan's subsequent joining of coalition of war against terror. Pakistan received highest average annual aid of approximately USD 2.9 billion during period 2010-14. The majority of the funds have come under the Coalition Support Fund (CSF) which is the reimbursement of the cost of fighting terrorism over and above regular military cost incurred by the Pakistan. The other security-related accounts under which aid inflows have received are the Pakistan Counterinsurgency Fund/Counterinsurgency Capability Fund (PCF/PCCF).

There was a clear shift in US aid strategy in 2010 when USA offered non-military aid to Pakistan under Enhanced Partnership with Pakistan Act, also known as the Kerry-Lugar-Berman Act. The act committed USD 1.5 billion per year to Pakistan as non-military aid from 2010 to 2014. Being part of war on terror, the military expenditures in Pakistan have also observed a significant increase. For instance, during 2015-16, Pakistan has spent around USD 1,630 million on arms imports. The official accounts show that from during 2007-2016, Pakistan has imported arms worth on average USD 1,072 million per year. The compound annual growth rate of military expenditure is 14 percent from 2007-2016. This study contributes to the ongoing debate

¹ In 1954, SEATO (Southeast Asia Treaty Organization) was formed with an objective to arrest growing influence of communism. The member countries include: USA, France, Great Britain, New Zealand, Australia, Philippines, Thailand and Pakistan. In 1955, Turkey, Iraq, Great Britain, Iran and Pakistan signed Baghdad Pact to protect the region against communist encroachment. In 1959, it was named as CENTO (the Central Treaty Organization) when Iraq pulled out of the Pact.

of aid effectiveness by analyzing case of Pakistan. The motivation of this study is to estimate the impact of foreign aid vis-à-vis conflict on economic growth of Pakistan. The majority of empirical literature on Pakistan has highlighted that foreign aid has been ineffective in promoting economic growth. In this regard, I want to analyze and highlight the role of conflict in aid effectiveness. The rationale of foreign aid states that aid is needed to fill saving-investment gap to accelerate economic growth. However, conflict prone country's fungible aid issue can divert financial inflows to military and non-development expenditures which results in making aid ineffective to promote economic growth and combating conflict.

Pakistan has long history to be involved in inter-state conflict. At the same time, intra-state conflict has also increased especially after Pakistan involvement in global war on terror. Political instability, high unemployment rate, law and order conditions, unavailability or lack of access to financial and physical resources for general public, low school enrollment rate, low public spending on education sector, religious and ethnic issues can be attributed for increase in conflict in Pakistan. Three major wars with India, increased terrorist attacks in the aftermath of 9/11, and burden of afghan refugees are the main origins of conflict in Pakistan.

4. Estimation methodology and data

Economic growth of any country depends on combination of inputs (labor L, financial and physical capital K) with reference to their elasticities. Availability and responsiveness of inputs enables an economy to increase exportable production (To).

$$Y = f(L^\alpha, K^\beta)$$

$$Y = f(L^\alpha, K^\beta, To^\gamma)$$

An economy suffering with low financial capital and savings will require foreign assistance to reduce saving investment gap to increase output. This need is rationale behind foreign aid and foreign debt.

$$Y = f(L^\alpha, K^\beta, To^\gamma, Aid, Debt)$$

The problem emerges when recipient government faces any conflict. To combat that conflict, government divert these financial inflows to reduce the level of conflict. Developing countries, being already faced with low saving-low investment trap, thus look for foreign aid and debt to deal with conflict. Similarly, low revenue (R) collection also leads to increase in foreign assistance and debt dependency. In this study, an index has been constructed to assess the impact of conflict on economic growth.

Construction of Conflict Index of Pakistan

In this study, I have constructed an index to measure the level of conflict in Pakistan following the Global Conflict Risk Index (GCRI). Due to unavailability of historical time series GCRI, this study has constructed index by using different political, social and geographical variables taken from description of GCRI. All included variables have been highlighted by literature, Smaldon (2033), Cramer (2011) and Gearon

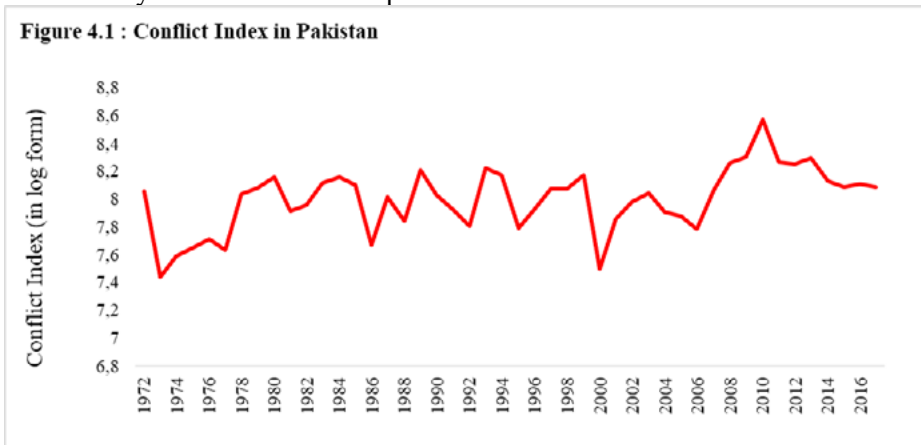
(2013) maintain that reduction in education expenditure, increase in unemployment and refuge burden are potential variables which can increase intra state conflict. Moreover, Collier and Hoeffler (2002) emphasize that arms trading, external attacks (i.e. drone etc) can trigger interstate conflict.

The value of index implies that higher the value of index, higher the level or intensity of the conflict. Principle Component Analysis (PCA) has used to construct this index. The first component of PCA explains maximum variations of the data, while the second and third components explain the remaining variations. Following literature, I have added refugee burden (Ref), unemployment rate (Ue), drone attacks (Da), fatalities due to conflict (F), education expenditure (Ex), arms imports (Arms), suicide attack and terrorist incidents (ST), intra (Is) and interstate (Ic) conflict in index. The data of all these variables have been taken from World Bank data bank and SIPRI military expenditure data base. Furthermore, the weights of included variables have derived through first principal component as it represents the highest correlation. Finally, weights have been assigned through normalizing the values of vector 1. The conflict index used in this analysis is based on the following equation:

$$Conflict\ Index = \hat{\omega}_1(Ref) - \hat{\omega}_2(EX) + \hat{\omega}_3(Ue) + \hat{\omega}_4(Da) + \hat{\omega}_5(F) + \hat{\omega}_6(ST) + \hat{\omega}_7(Ic) + \hat{\omega}_8(Is) + \hat{\omega}_9(Arms)$$

$$Conflict\ Index = 0.015(Ref) - 0.010(EX) + 0.046(Ue) + 0.18(Da) + 0.201(F) + 0.19(ST) + 0.155(Ic) + 0.141(Is) + 0.168(Arms)$$

Figure 4.1 presents historical trend of constructed conflict index. I have also checked the stationarity of this series and reported the results in Table 4.1.



The volatility in conflict index highlights the incidence and intensity of conflict over the long period of time. After the Indo-Pak war (1971), Pakistan faced interstate conflict which resulted in separation of east and west Pakistan. Implementation of nationalization policy increased income inequality, unemployment and poverty in the economy in 1970s. During the same time period, Pakistan economy suffered with

flood and drought on almost alternative years. The decline in per capita income and increase in inflation triggered intrastate conflict. After Afghan war, Pakistan economy came under severe pressure when notable amount of Afghan refugees migrated to Pakistan in 1979. This was the time when concept of religious radicalization was pursued and Pakistani Taliban emerged to take part in Afghan war. The aftermath of all was increased inter and intrastate conflict in 1990s and 2000s. The prevalence of conflict peaked further after the 9/11 attacks and Pakistan's subsequent joining of global war on terror. Suicide attacks rattled the cities and garrisons of Pakistan and more than 50,000 lives were lost in a period of 15 years. Military expenditures also increased tremendously along with heavy arms imports. The deterioration in law and order situation also resulted in reducing foreign direct investments decline and below potential GDP growth.

Table 4.1 Unit Root Test of Conflict Index

		t-Statistic	Prob.*
Augmented Dickey-Fuller test statistic		-3.8418	0.0051
Test critical values:	1% level	-3.5925	
	5% level	-2.9314	
	10% level	-2.6039	

*MacKinnon (1996) one-sided p-values.

The Methodology and Empirical Equations

In this study Generalized Method of Moment (GMM) technique has been employed to estimate the effectiveness of foreign aid in the presence of conflict. Hansen (1982) developed the generalized method of moments (GMM) model and it has been widely used due to its several advantages. Particularly, GMM is useful in case of endogeneity, Hansen and Tarp (2000), Rajan and Subramanian (2005) have highlighted the existence of potential endogeneity between aid and economic growth, they have also suggested that GMM methodology is appropriate to assess the relationship between aid and growth. Specifically, following equations have been estimated to assess the impact of foreign aid and conflict on Pakistan economy from 1972 to 2017.

$$\begin{aligned}
 (\ln Y_{2017} - \ln Y_{1972})_i &= a_0 + a_1 \ln(Aid)_i + a_2 \ln(L)_i + a_3 \ln(K)_i + a_4 \ln(To)_i \\
 &+ a_5 \ln(FDI)_i + a_6 \ln(Gx)_i + \mu
 \end{aligned} \tag{4.1}$$

$$\begin{aligned}
 (\ln Y_{2017} - \ln Y_{1972})_i &= a_0 + a_1 \ln(Conflict)_i + a_2 \ln(L)_i + a_3 \ln(K)_i + a_4 \ln(To)_i \\
 &+ a_5 \ln(FDI)_i + a_6 \ln(Gx)_i + \mu
 \end{aligned} \tag{4.2}$$

$$\begin{aligned}
 (\ln Y_{2017} - \ln Y_{1972})_i &= a_0 + a_1 \ln(Aid)_i + a_2 \ln(L)_i + a_3 \ln(K)_i + a_4 \ln(To)_i \\
 &+ a_5 \ln(FDI)_i + a_6 \ln(Conflict)_i + \mu
 \end{aligned} \tag{4.3}$$

The dependent variable is real GDP per capita (Y) from 1972-2017. Literature

maintains positive impact of labor, capital and trade openness on economic growth. Here, gross fixed capital formation series has used as a proxy of capital. While impact of foreign aid and foreign direct investment on economic growth varies by country's need and utilization. Following Burnside and Dollar (2000), an aid-conflict interactive term has constructed in equation (4.4). This term implies that aid inflows associated to conflict have impact on economic growth of Pakistan. By rearranging equation (4.3), following equations assess the impact of aid inflows associated to conflict on economic growth.

$$(\ln Y_{2017} - \ln Y_{1972})_i = a_0 + a_1 \ln(AidConflict_{interactive\ term})_i + a_2 \ln(L)_i + a_3 \ln(K)_i + a_4 \ln(To)_i + a_5 \ln(FDI)_i + a_6 \ln(Gx)_i + \mu \quad (4.4)$$

$$(\ln Y_{2017} - \ln Y_{1972})_i = a_0 + a_1 \ln(Aid)_i + a_2 \ln(L)_i + a_3 \ln(K)_i + a_4 \ln(To)_i + a_5 \ln(FDI)_i + a_6 \ln(AidConflict_{interactive\ term})_i + a_7 \ln(Gx)_i + \mu \quad (4.5)$$

To check the robustness of results, I have re-estimated the equations 4.3 & 4.4 through Fully Modified OLS method.

Arms Trade and Military Expenditure

When government faces conflict, military expenses (M) increases along with non-development expenditures (Gc). Literature also highlight that revenue collection in developing countries are far lower than their expenditures and situation get even worse when there is a conflict. In the presence of any war or conflict, government diverts its financial resources from development avenues to military expenditures to fight conflict. Considering that economic welfare (W) is a function of government spending, following equations express the consumption pattern of government:

$$W=f(Gd,Gc,M) \\ Maximize W(G_d, G_c, N) = G_d^\alpha, G_c^\beta, M^\gamma \quad (4 a)$$

Revenue collection in developing and low income countries are usually lower than public sector expenditures, hence

$$R \leq (P_d + G_d + P_c G_c + P_m M)$$

Here, the need for aid arises to fill income-expenditure gap.

$$R + Aid = P_d + G_d + P_c G_c + P_m M \quad (4 b)$$

By using (3.1) and (3.2), the langrangian will be

$$\mathcal{L} = G_d^\alpha, G_c^\beta, M^\gamma + \lambda (R + Aid - P_d G_d - P_c G_c - P_m M)$$

Here, G_d and G_c are threshold levels of public expenditures and M is threshold level of military expenditures to fight conflict. By normalizing (4 a), I get

$$Maximize W(G_d, G_c, M) = \frac{\alpha \ln(G_d - G_{do})}{\partial G_d} + \frac{\beta \ln(G_c - G_{co})}{\partial G_c} + \gamma \ln(M - M_o) \quad (4 c)$$

Following first order condition, I have

$$\frac{\partial W}{\partial G_c} = \frac{\alpha}{(G_c - G_{co})} - \lambda P_{G_c} - \lambda P_m$$

$$\frac{\partial W}{\partial \lambda} = R + Aid - P_d G_d - P_c G_c - P_m M$$

by solving for Gd, Gc, M and langrangian multiplier (λ), I get

$$Gd^* = \frac{\alpha}{\lambda P_d} + \lambda P_d + \lambda P_m$$

$$Gc^* = \frac{\beta}{\lambda P_c} + \lambda P_c + \lambda P_m + \lambda P_d$$

$$M^* = \frac{\gamma}{\lambda P_m} + \lambda P_c$$

$$\lambda = \frac{\alpha + \beta + \gamma}{R + Aid - P_d Gd - P_c Gc - P_m M}$$

After substituting the values of Gd, Gc and M in langrangian multiplier, I get

$$Gd^* = \frac{\alpha (R + Aid - P_d Gd - P_c Gc - P_m M)}{(\alpha + \beta + \gamma) P_d} + Gdo$$

$$Gc^* = \frac{\beta (R + Aid - P_d Gd - P_c Gc - P_m M)}{(\alpha + \beta + \gamma) P_c} + Gco$$

$$M^* = \frac{\gamma (R + Aid - P_d Gd - P_c Gc - P_m M)}{(\alpha + \beta + \gamma) P_d} + Mo$$

This optimal value of military expenditures expresses the expenditures on arms imports, internally displaced people's insurances, resettlement cost in operation area and cost of maintaining desirable level of military soldiers and equipment to fight conflict. This cannot be financed solely from revenue, increase in these expenditures demand more aids and debts. Pakistan, being part of war on terror, also utilized coalition support funds to finance these exponentially increased military expenditures since 2007.

In presence of conflict, military expenditure increases so as arms trade. Following equation asserts that impact of conflict on arms imports (AT) in case of Pakistan.

$$(AT_{2017} - AT_{1972})_i = a_0 + a_1 (Aid)_i + a_2 \ln (Conflict)_i + a_3 (CSF)_i + a_4 (M)_i + \mu \quad (4.6)$$

$$(AT_{2017} - AT_{1972})_i = a_0 + a_1 (Aid)_i + a_2 (Inter)_i + a_3 \ln (Intra)_i + a_4 (CSF)_i + a_5 (M)_i + \mu \quad (4.7)$$

Since 9/11, Pakistan received coalition support fund (CSF) to fight conflict, and therefore I have used dummy for CSF in this analysis. In Equation (4.6), I have replaced conflict index with inter and intra state conflict.

Data Source and Variables

Table 4.2 Variables and Data Source (1972-2017)

Variable	Definition	Data Source
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Aid	Official Development Assistance (% of GDP)	World Bank, (2017)
Y	Per capital GDP (USD, Constant)	World Bank, (2017)
FDI	Foreign Direct Investment (% of GDP)	World Bank, (2017)
Gx	Government Expenditure (% of GDP)	World Bank, (2017)
L	Labour Force	World Bank, (2017)
To	Trade Openness (% of GDP)	State Bank of Pakistan
K	Gross Fixed Capital Formation (% of GDP)	World Bank, (2017)
M	Military Spending, (million, USD)	SIPRI Military Database (2017)
AT	Arms Imports, (million, USD)	SIPRI Military Database (2017)

5. Estimation results and discussion

This study has empirically assessed the aid effectiveness in case of Pakistan. This study has employed GMM methodology to analyze the dynamics of foreign aid, conflict and economic growth. The results in Table 5.1 show the negative association between foreign aid inflows and economic growth; one percent increase in foreign aid inflows leads to 0.07 percent decrease in economic growth. The robustness of the result is examined in Table 5.1. Foreign aid has consistently negative coefficient. Findings of this study are consistent with the results of Doucouliagos and Martins (2005), Javid and Qayyum (2011). Rajan and Subramanian (2005) also state that aid inflows can reduce competitiveness of the country which can result in low exportable production, hence, low economic growth. Another reason behind this finding can be Pakistan's reliance on bilateral aid. Baure (1982) and Radelet (2006) emphasized that bilateral aid is mostly politically motivated aid and not for economic needs of economy. Existence of corruption and political instability can also be contributing factors in making aid ineffective. In this analysis, I have empirically estimated the impact of conflict on foreign-growth relationship. Results of Eq. 4.3 show that in the presence of conflict, aid reduces economic growth by 0.05 percent. Similarly, conflict negatively effects economic growth by 0.07 percent when aid sent to conflict prone Pakistan economy. The results of equation (4.4) suggest that aid inflows associated to conflict control also portrayed negative impact on Pakistan economy. Aid affiliated to conflict decreased economic growth by 0.01 percent. This result is also in line with existing literature. As many studies suggested that aid provided to fight conflict can further boost the level and intensity of conflict (Narrang, 2015, Strandow et al. 2016).

Table 5.1 Foreign Aid, Conflict and Economic Growth Dynamics in Pakistan (GMM methodology estimators)

Dependent Variable : GDP Per Capita : Sample 1972-2017					
	Eq 4.1	Eq 4.2	Eq 4.3	Eq 4.4	Eq 4.5
Intercept	2.7556 (0.0003)	1.3421 (0.0033)	2.5233 (0.0001)	1.1246 (0.0013)	1.5688 (0.0054)
Foreign Aid % GDP	-0.0796 (0.0012)		-0.0516 (0.0748)		-0.0245 (0.435)*
Labor Force	0.8092 (0.0003)	0.8904 (0.0001)	0.8448 (0.0001)	0.9983 (0.0001)	0.9718 (0.0001)
Gross Fixed Capital Formation % of GDP	0.0806 -0.0809	0.2823 (0.0082)	0.1085 (0.0331)	0.2466 (0.0017)	0.2499 (0.0022)
Foreign Direct Investment % GDP	-0.0025 (0.8488)*	-0.0203 (0.0736)	-0.0130 (0.3005)	-0.0270 (0.0376)	-0.0208 (0.1404)*
Trade Openness	0.3508 (0.0323)	0.4237 (0.0156)	0.5059 (0.0079)	0.4908 (0.0001)	0.3608 (0.0001)
Government Expenditure % GDP	0.0079 (0.5126)*	0.0260 (0.1425)*	0.0017 (0.8671)*	0.0092 (0.2706)*	0.0172 (0.0071)*
(Conflict Index)		-0.0814 (0.0911)	-0.0753 (0.0503)		
Aid-Conflict Interactive term				-0.0108 (0.0001)	-0.0090 (0.0149)
Diagnostics					
Prob (J-Stats)	0.2499	0.253	0.1563	0.4058	0.4648
R-Square	0.9814	0.9715	0.9820	0.9779	0.9769
D.W	1.5650	1.529	1.5590	2.2177	2.2746

Note: p-values are in parenthesis, * denotes insignificance.

To check the robustness of results, I have re-estimated Eq. 4.3 through Fully Modified Ordinary Least Square (FMOLS) method. The results presented in Table 5.2 are consistent with the results of GMM estimations. The coefficients and signs of control variables are also steady throughout the analysis. As highlighted in the literature, labor force, trade openness, and gross fixed capital formation have significantly positive impact on economic growth of Pakistan. However, foreign direct investment has negative impact on economic wellbeing; historically Pakistan has experienced that the most of the foreign direct investment did not bring technology to Pakistan and this

eventually resulted in capital flight out of the economy. This result is also consistent with results reported by Adewumi (2007) and Rahman (2015).

Table 5.2 Foreign Aid, Conflict and Economic Growth Dynamics in Pakistan (Fully Modified OLS)

Dependent Variable : GDP Per Capita : Sample 1972-2017		
	Eq 4.3	Eq 4.4
Intercept	3.2256 (0.0001)	3.2875 (0.0001)
Foreign Aid % GDP	-0.0396 (0.0023)	
Labor Force	0.8136 (0.0007)	0.8623 (0.0001)
Gross Fixed Capital Formation % of GDP	0.1084 (0.0092)	0.1440 (0.0044)
Foreign Direct Investment % GDP	-0.0006 (0.9366)	0.0014 (0.8605)
Trade Openness	0.2687 (0.0001)	0.2892 (0.0001)
Government Expenditures (% of GDP)	0.0057 (0.0537)	0.0055 (0.1093)
Conflict Index	-0.0676 (0.0041)	
Aid-Conflict Interactive term		-0.3080 (0.0016)
Diagnostics		
R-Square	0.9868	0.9842
Adjusted R-squared	0.9843	0.9817
ADF test- Residuals	(0.0000)	(0.0000)

Note: p-values are in parenthesis

Findings of this study show that existing conflict has significantly negative impact on economic growth of Pakistan even in the absence of foreign aid in Eq 4.2. This also suggest robustness of in findings. Results presented in Table 5.1 show that one percent increase in conflict reduces economic growth rate by 0.14% in Pakistan. These results are in line with findings of Polachek and Sevastianova (2012). They state that annual economic growth reduces by 0.01-0.13 percentage points if there is any ongoing civil war. Similarly, interstate conflict reduces growth by 0.18-2.77 percentage points. As Pakistan has been suffering with both inter and intra state conflicts, findings of negative

association between growth and conflict are per expectation. Also, the findings have supported the construction of index. All the employed variables in index have meaningful relationship with emergence of conflict in Pakistan. For instance, literature maintains that inflow of refugees leads to increase in ethnic conflict (Newland, 1993). Similarly, Brown (1993) states that refugee burden increases security cost and military expenditures. After an increase in refugee burden since 1979, Pakistan has faced a tremendous rise in interstate as well as intrastate and ethnic conflict. Considering limited fiscal space due to low revenue mobilization, Pakistan had to seek foreign aid to accommodate refugees.

According to Gearon (2013), reduction in education expenditures leads to increase in terrorism. Unesco's report² also suggests that education attainment can prevent a country from extremisms and terrorism. Pakistan has received a handsome amount of multilateral aid to finance education sector expenditures.

Cramer (2011) presents a generous literature to establish positive relationship between conflict and unemployment. Due to high level of unemployment, more people get involve in violent conflict. The cost of this conflict is reduction in economic growth and further increment in unemployment. Mandel (1998) states that conflict has an economic cost. Increase in arms imports reduces development expenditure of developing countries. However, this arms trade has positive impact on supplier's economic growth. Craft and Smaldone (2003) maintain positive relationship between arms trade and conflict. They also find negative impact of war and arms' imports on economic growth of sub-Saharan Africa. In case of Pakistan, fighting conflict results in an increase in arms imports so as aid requirement. Drone attacks increased cost of settlement and insurance for Pakistan. Pakistan has lost number of soldier and personals in interstate and intrastate conflict, which results in increase in transfer payment burden on government.

Findings of this study show that aid-conflict interactive term also has negative impact on economic growth. Historically, most of the aid provided to Pakistan was associated to refuge settlement, conflict mitigation or to finance war on terror. The aid has not been provided to fill the saving-investment gap or to promote economic growth. Since aid inflows coincide with conflict, it has negative impact on Pakistan's economic growth.

This study has empirically estimated the association of conflict with arms imports in case of Pakistan. Results in Table 5.3 indicate that due to increase in conflict, arms imports have significantly increased in Pakistan. One percent increase in conflict leads to 1.6 percent increase in arms imports, enlarging the military expenditures ultimately. While, coalition support funds and aid to fight terrorism has insignificantly positive association with arms imports. It can also be assessed that arms imports have significantly increased due to interstate conflict and intrastate conflict have insignificant positive association with arms imports in case of Pakistan.

Table 5.3 Foreign Aid, Conflict and Arms Imports Dynamics in Pakistan

² The report is available at <http://unesdoc.unesco.org/images/0024/002477/247764e.pdf>

Dependent Variable : Arms Imports (growth rate) sample (1972-2017)		
	Eq 4.5	Eq 4.6
Intercept	13.1715 (0.0003)	14.3460 (0.0047)
Military Expenditure (% of GDP)	0.2365 (0.0415)	0.0121 (0.0113)
Conflict Index	1.6523 (0.0020)	
Foreign Aid (% GDP)	0.0001 (0.0810)	0.0004 (0.6852)
Interstate Conflict		1.7645 (0.0054)
Intrastate Conflict		0.5394 (0.7072)
Coalition Support Fund	0.3835 (0.2114)	0.0859 (0.9404)
Diagnostics		
R-Square	0.7956	0.8121
Prob(J-Stats)	0.5742	0.3460
D.W stats	2.0565	1.8530

Note: p-values are in parenthesis

6. Policy implication

This study has contributed in aid effectiveness literature by analyzing the role of conflict. Results of this study show that at the time of the conflict, the aid inflows are rendered ineffective. One explanation could be that most of the aid flows make their way towards military expenditures at the time of conflict. Further, without restoring the prevailing law and order condition in a country, the developmental activities being aimed by the aid inflows are also not properly pursued. A case in point is US aid inflows towards Pakistan for development expenditures on account of Kerry-Lugar support program. The aid inflows prove to be ineffective since the law and order situation was not conducive for any development activities. The policy implication for both donor and recipient of aid is to first direct their efforts towards reducing conflict in the country.

References

- Addison, T. and Murshed, S.M., 2001. *From conflict to reconstruction: Reviving the social contract* (No. 2001/48). WIDER Discussion Papers//World Institute for Development Economics (UNU-WIDER).
- Adewumi, S., 2007. The impact of FDI on growth in developing countries: An African experience.
- Ahmed, M.M., 2010. External debts, growth and peace in the Sudan: Some serious challenges facing the country in the post-conflict era.
- Anderson, M.B., 1999. *Do no harm: how aid can support peace--or war*. Lynne Rienner Publishers.
- Anwar, M. and Michaelowa, K., 2006. The political economy of US aid to Pakistan. *Review of Development Economics*, 10(2), pp.195-209.
- Backer, D., Bhavnani, R. and Huth, P. eds., 2016. *Peace and Conflict 2016*. Routledge.
- Bauer, P. and Yamey, B., 1982. Foreign aid: What is at stake?. *The public interest*, (68), p.53.
- Berman, E., Shapiro, J.N. and Felter, J.H., 2011. Can hearts and minds be bought? The economics of counterinsurgency in Iraq. *Journal of Political Economy*, 119(4), pp.766-819.
- Bortolotto (2010). American Foreign Aid: Recent Trends in Goals and Allocation. *Social Sciences Journal*, 10(1), p.7.
- Brown, M.E. ed., 1993. *Ethnic conflict and international security*. Princeton University Press.
- Burnside, C. and Dollar, D., 1997. Aid spurs growth-in a sound policy environment. *Finance and Development*, 34(4), p.4.
- Burnside, C. and Dollar, D., 2000. Aid, policies, and growth. *American economic review*, 90(4), pp.847-868.
- Burnside, C. and Dollar, D., 2004. Aid, policies, and growth: reply. *American economic review*, 94(3), pp.781-784.
- Chenery, H.B. and Strout, A.M., 1968. Foreign assistance and economic development: Reply. *The American Economic Review*, 58(4), pp.912-916.
- Collier, P. and Dollar, D., 2001. Aid, risk and the special concerns of small states. *Small states in the global economy*, pp.11-38.
- Collier, P. and Dollar, D., 2002. Aid allocation and poverty reduction. *European economic review*, 46(8), pp.1475-1500.
- Collier, P. and Hoeffler, A., 2002. Aid, policy and peace: Reducing the risks of civil conflict. *Defence and Peace Economics*, 13(6), pp.435-450.
- Collier, Paul, and Benedikt Goderis. "Does aid mitigate external shocks?." *Review of Development Economics* 13, no. 3 (2009): 429-451.
- Craft, C. and Smaldone, J., 2003. Arms imports in sub-saharan Africa: Predicting conflict involvement. *Defence and peace economics*, 14(1), pp.37-49.
- Cramer, C., 2011. Unemployment and participation in violence.
- Dalgaard, C.J. and Hansen, H., 2001. On aid, growth and good policies. *Journal of development Studies*, 37(6), pp.17-41.
- De Ree, J. and Nillesen, E., 2009. Aiding violence or peace? The impact of foreign aid on the risk of civil conflict in sub-Saharan Africa. *Journal of Development Economics*, 88(2),

- pp.301-313.
- De Waal, A., 1997. Democratizing the aid encounter in Africa. *International Affairs*, 73(4), pp.623-639.
- Doucouliaagos, H. and Paldam, M., 2009. The aid effectiveness literature: The sad results of 40 years of research. *Journal of Economic Surveys*, 23(3), pp.433-461.
- Easterly, W., 2001. *The elusive quest for growth: economists' adventures and misadventures in the tropics*. MIT press.
- Easterly, W., 2003. Can foreign aid buy growth?. *Journal of economic Perspectives*, 17(3), pp.23-48.
- Gearon, L., 2013. The counter terrorist classroom: Religion, education, and security. *Religious Education*, 108(2), pp.129-147.
- Hansen, H. and Tarp, F., 2000. Aid effectiveness disputed. *Foreign Aid and Development: lessons learnt and directions for the future*, pp.103-128.
- Khan, M.A. and Ahmed, A., 2007. Foreign aid—blessing or curse: Evidence from Pakistan. *The Pakistan Development Review*, pp.215-240.
- Khan, M.A. and Ahmed, A., 2007. Foreign aid—blessing or curse: Evidence from Pakistan. *The Pakistan Development Review*, pp.215-240.
- Kinsella, D., 1994. Conflict in context: Arms transfers and third world rivalries during the cold war. *American Journal of Political Science*, pp.557-581.
- Lensink, R. and Morrissey, O., 2000. Aid instability as a measure of uncertainty and the positive impact of aid on growth. *The Journal of Development Studies*, 36(3), pp.31-49.
- Lensink, R. and White, H., 2000. Assessing aid: a manifesto for aid in the 21st century?. *Oxford Development Studies*, 28(1), pp.5-18.
- Lensink, R. and White, H., 2001. Are there negative returns to aid?. *Journal of development Studies*, 37(6), pp.42-65.
- Mandel, R., 1998. Exploding myths about global arms transfers. *Journal of Conflict Studies*, 18(2).
- MANSOOR, S., BAIG, M.A. and JAVID, M., 2017, July. FOREIGN AID VOLATILITY AND ECONOMIC GROWTH: A CASE STUDY OF PAKISTAN. In *3rd Academic International Conference on Law, Economics and Finance* (p. 6).
- McGillivray, M. and Noorbakhsh, F., 2007. *Aid, conflict and human development* (No. 2007_03).
- Muhammad, J. and Qayyum, A., 2011. Foreign aid-growth nexus in Pakistan: role of macroeconomic policies.
- Muhammad, J. and Qayyum, A., 2011. Foreign aid-growth nexus in pakistan: role of macroeconomic policies.
- Narang, N., 2015. Assisting uncertainty: how humanitarian aid can inadvertently prolong civil war. *International Studies Quarterly*, 59(1), pp.184-195.
- Nasir, M., Rehman, F.U. and Orakzai, M., 2012. Exploring the nexus: Foreign aid, war on terror, and conflict in Pakistan. *Economic Modelling*, 29(4), pp.1137-1145.
- Newland, K., 1993. Ethnic conflict and refugees. *Survival*, 35(1), pp.81-101.
- Polachek, S.W. and Sevastianova, D., 2012. Does conflict disrupt growth? Evidence of the

- relationship between political instability and national economic performance. *The Journal of International Trade & Economic Development*, 21(3), pp.361-388.
- Polachek, S.W. and Sevastianova, D., 2012. Does conflict disrupt growth? Evidence of the relationship between political instability and national economic performance. *The Journal of International Trade & Economic Development*, 21(3), pp.361-388.
- Polman, L., 2010. *The crisis caravan: what's wrong with humanitarian aid?*. Metropolitan Books.
- Radelet, S., 2006. A primer on foreign aid.
- Rahman, A., 2015. Impact of foreign direct investment on economic growth: Empirical evidence from Bangladesh. *International Journal of Economics and Finance*, 7(2), p.178.
- Rajan, R.G. and Subramanian, A., 2005. *Aid and growth: What does the cross-country evidence really show?* (No. w11513). National Bureau of Economic Research.
- Rajan, R.G. and Subramanian, A., 2005. *Aid and growth: What does the cross-country evidence really show?* (No. w11513). National Bureau of Economic Research.
- Sachs, J.D., 2006. How aid can work. *The New York Review of Books*, 53(20).
- Savun, B. and Tirone, D.C., 2011. Foreign aid, democratization, and civil conflict: how does democracy aid affect civil conflict?. *American Journal of Political Science*, 55(2), pp.233-246.
- Schulze, K.E., 2016. *The Arab-Israeli Conflict*. Taylor & Francis.
- Sharp, J.M., 2015, June. US foreign assistance to the Middle East: Historical background, recent trends, and the FY2016 request. LIBRARY OF CONGRESS WASHINGTON DC CONGRESSIONAL RESEARCH SERVICE.
- Strandow, D., Findley, M.G. and Young, J.M., 2014. Foreign aid and the intensity of violent armed conflict. *Unpublished working paper*.
- Svensson, J., 1999. Aid, growth and democracy. *Economics & politics*, 11(3), pp.275-297.
- Tao, R., Strandow, D., Findley, M., Thill, J.C. and Walsh, J., 2016. A hybrid approach to modeling territorial control in violent armed conflicts. *Transactions in GIS*, 20(3), pp.413-425.

Towards a Peaceful Change of the International Order ¹ **What only wars were able to do... so far**

Fernando Ayala*

The modern international order was born with the so-called Peace of Westphalia in 1648 that ended the 30-year war in Europe and gave rise to the concept of the sovereign State we know today. From then on, the international system began to evolve under a pattern imposed by the European empires until the beginning of the 20th century, in which France occupied a special place until the final defeat of Napoleon, in 1815. The French, however, have been able to settle and benefit throughout history thanks to the talents of their diplomatic and political negotiators¹. When examining the last 200 years, we see that the international system has changed only as a result of great wars or revolutions that have marked the future of humanity, as was the French Revolution which, together with the independence of the United States, marked the beginning of the loss of power of the empires of the Western world. Similar was the case of the Chinese dynasty and the Turkish Empire, which began their decline in the 19th century. The Vienna Congress in 1815², after the fall of Napoleon - even though it sought the restoration of the traditional European monarchies - generated a political, social, economic and cultural change that transcended the frontiers and ended absolutism definitively, rearranging the international system and initiating a long period of peace in Europe.

Napoleon's wars, which conquered countries and territories reaching Egypt and Russia, can be considered practically as a small world war or a great European war³, where France expanded its power and modified borders seeking to be a global empire and seize the power of the English. Its defeat gave rise to a new international order outlined in the Congress of Vienna and based on the principle of the balance of power to avoid imperialist ambitions and ensure peace⁴.

War orders the world

It's always been wars and their victors, with their successes and mistakes, which have determined borders and hegemonies and thus, the international order. The emergence of the German Empire, in 1871, aroused fears for its economic strength

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and the militarism that inspired it, generating new military alliances in Europe, the development of an arms race that encouraged nationalism and the rebellion of the peoples under the Austro-Hungarian hegemony that stretched from Vienna to the Balkans. It also awakened the imperialist greed for the riches of Africa and the Middle East and unleashed the First World War (WW1).

The beginning of the 20th century, marked by the arrival of modernity with its advances for the life of the cities and the promise of upcoming prosperity, was finished with the Sarajevo shot in 1914 and the beginning of WW1, which left an estimated 10 million dead and 20 million wounded and crippled. Germany had to surrender and paid its arrogance with the humiliating Treaty of Versailles, in 1918, which later became the raw material to feed Nazism.

The premiere of the League of Nations in 1919 launched a new international order that lasted for 21 years with the first Security Council, which included the right to veto and that would govern the destinies of humanity⁵. Weak in its composition (neither the United States, nor Germany or the USSR were present), without coercive power and at a time when a new conflict was incubated, there was little it could do. Anecdotes tell that in views of the successive violations of the Treaty of Versailles by Hitler, the Security Council kept sent him telegrams of protest which would have led Winston Churchill to point out that: "If Hitler continues to violate the Treaty, the Council will stop sending him telegrams...".

The generation that went through the Great War did not think it possible to live another. However, on September 1, 1939, Europe would start a new one that did not only involve the armies, but also meant the massive bombardments of cities, deportations and the systematic extermination of Jews, Gypsies, communists, disabled, homosexuals and patriots of the resistance in the concentration camps of the Nazi and their allies in the occupied countries. The final brooch was put by the United States with the launch of two nuclear bombs in Hiroshima and Nagasaki, in 1945⁶. That same year, in Yalta and Potsdam, the new international order was officially born, imposed by the three great winners: the United States, the Soviet Union and the United Kingdom. No one else. Borders were rearranged, areas of influence determined, Germany demilitarized and divided, and the creation of the United Nations was materialized at the San Francisco Conference - with a Security Council, the second in history, in place until today with 5 permanent member countries: United States, Soviet Union (today Russia), the People's Republic of China, the United Kingdom and France. It is only they who have the last word about global security, having the right to veto⁷.

A peaceful way towards a new world order

The challenge lies in changing the current order in a consensual and peaceful way, before the accumulation of tensions leads to another tragic outcome, as has happened in the past. Every war has been worse in terms of loss of human lives. Today there are 9 countries that have a nuclear arsenal and several that do not relent in their goal of getting one. The United States and Russia concentrate 90% of the bombs. On Feb 01, President Trump proceeded to unilaterally cancel the INF Treaty (Intermediate-Range

Nuclear Forces) signed in 1986 between the USSR and the U.S. The following day, Moscow announced that it also considered it finished.

The cancellation of the INF, that had given Europe peace of mind since it reduced the number of medium-range missiles from 63,000 to 8,900, opens the door to a new arms race that de facto is already underway and where all the great powers participate with hundreds of thousands of millions of dollars. The German Minister of Economy, Peter Altmaier, stated that he wishes to keep the INF but if not, he would not rule out the rearmament of his country: “Not doing so would weaken Germany’s negotiating position⁸”, he expressed in a clear sample of political realism, which puts the search of national interest first and which is the ruling doctrine.

The 21st century will be Asian

The geopolitical map will radically change over the next few years thanks to Asia’s growing breakthrough as an economic, demographic and military force which today concentrates 60% of the world’s population (4.4 billion of inhabitants) and where China with 1.4 billion and India with 1.3 billion become increasingly relevant actors⁹. We can add Japan and the two Koreas that at some point will reach reunification. Asia, due to its numbers, economic and military strength, will require greater participation in global affairs, as well as Germany, that has legitimated its obscure past, and which today is a bulwark of democracy.

It is no longer possible to talk of a struggle between the capitalist and the socialist system, or of ideological rivalry, when socialism practically does not exist anymore and what’s left will quickly disappear. The dangers which are common to all countries are the multiple global security threats: climate change, pollution of oceans and cities, military spending, disarmament, water, migrations, projections of demographic growth, human rights or cybercrime, among others, demand a collective responsibility that advances towards a global governance.

There is a growing danger of natural disasters of which we do not know to which extent will affect the planet and its species. Neither should one minimize the danger of military conflicts that may involve the powers with unpredictable outcome, if they ever happened. The higher military spending which President Trump demands from the NATO allies, the expansion of this alliance that continues fencing Russia in, as well as the annexation of the Ukraine on behalf of Moscow, or the hegemony that China seeks in Asia, only bring us closer to disaster. We assist to a rivalry of spaces of powers where egos also count, but where no force, however powerful, can solve the problems alone.

The global economic system based on consumption and/or economic growth at any price, along with competition and profit, are key elements that need to be rethought, as they threaten our future. Money has corrupted many political systems, and citizen discomfort runs through the developed and developing world. Authoritarian surprises can occur today in the North as well as in the South through popular vote, such as it happened in Germany in the last century. The growth of populist forces appears to be the response of civil society to the disenchantment that politics provoke and has

been already installed in many countries. It is even threatening integration processes that have cost a lot to build. It is time to act, and the main responsibility lies with the main international actors. The legitimate pursuit of national interest must have a limit to avoid repeating the mistakes of the past. Civil society, responsible politicians and the scientific, academic and cultural community must press hard to democratize the international system and move towards global and responsible governance to secure the peace and the planet where we live.

References

- ¹ One should just remember the role of Talleyrand in the Congress of Vienna where France, despite the final defeat of Napoleon at Waterloo, kept being treated as a great power; it was only confined to return to its borders and not even paid war compensations. At the end of WW2, General De Gaulle appeared together with the allies in Berlin managing to be treated like a victorious country and became one of the four occupying forces of the German capital. France subsequently obtained a seat as a permanent member of the United Nations Security Council.
- ² From September 1814 to June 1815, a total of 18 countries met for the final signing while the negotiations were carried out only by the 4 main powers: Austria, Prussia, England and Russia, plus the defeated France that was treated as an equal, returning to its borders and without payment of war compensation. For 9 months, Vienna was capital of the empires with all the pageantry and etiquette of dinners and galas, which led the Austrian Prince de Ligne to say: “Le congrès ne marche pas, il dance” (The Congress does not advance, it dances).
- ³ The terrible dictatorship of Napoleon and its wars left several million dead, missing, wounded and crippled along with material destruction in many countries where La Grande Armée passed through.
- ⁴ See Kissinger H., *Diplomacy*, Simon & Schuster, New York, 1994. There were practically 100 years of peace excepting the local wars between Austria-Prussia in 1866, called the “7 weeks”, and the Franco-Prussian war that lasted 10 months (1870-1871) and gave rise to the unification and to the German Empire that would last until 1918.
- ⁵ Formed by France, United Kingdom, Italy, Japan and the United States. The latter never assumed, because the U.S. Senate did not approve, even though President Wilson had been its main promoter. In 1926, Germany was authorized to enter, and in 1934 the USSR did. The number of countries with veto right increased progressively, reaching 15 by 1934. See *History of the United Nations*.
- ⁶ The number of immediate victims of the bombs in Hiroshima and Nagasaki is esteemed in 80,000 and 40,000. The total victims of WW2 are estimated at about 50 million, including 24 million Soviets, 6 million Jews, 7 million Germans, 3 million Japanese, among many others.
- ⁷ During the negotiations in San Francisco, an attempt was made to approve the consensus for the implementation of the veto, but it was strictly rejected by the United States since the Senate would not ratify the Treaty in those terms.
- ⁸ See *El País*, 2019/02/10.
- ⁹ Africa concentrates 16% of the world’s population, Europe 10%, Latin America and the

Caribbean 9% and North America, Oceania 5%. It is time to take the demographic growth seriously, since according to the United Nations the world population will reach 8.5 billion inhabitants in 2030, 9.7 billion in 2050 and 11.2 billion in 2100. See World Population.

The Difficult Relationships Between Iran And USA¹ **Who is looking for, or to whom a war is convenient?**

Fernando Ayala*

The theocratic revolution of 1978 led by Ayatollah Ruhollah Khomeini which ended the monarchy and dictatorship of the Shah, Reza Pahlavi, had several consequences on the political map of the Middle East. We must not forget that the United Kingdom and the United States were great allies of Iran and of Pahlavi. So much so that today it is known that in 1953, with the consent of the Shah these two countries overthrew the then Prime Minister Mohammad Mosaddek, who had been democratically elected in 1951 and had the bad idea of nationalizing oil with the majority support of the Iranian Parliament. It was the English, owners of the deposits, who prepared the coup supported by the recently created CIA, in one of its first operations abroad of heavy caliber. It was then that the “King of kings,” Reza Pahlavi, seized absolute power, generating in just over two decades everything necessary for his fall: impoverishment of the majority of the population, enrichment of the elite, repression without limits at the hands of the feared Savak, and a monarchic lifestyle full of ostentations and waste, typical of the Thousand and One Nights. Just what Khomeini needed to return in glory and majesty from his exile in Paris and proclaim the Islamic Republic. Until a year before the fall of Shah, relations between Washington and Tehran were fluid, as evidenced by the visit of former President Jimmy Carter in 1977, who stated in his speech at the official dinner: “Our friendship is irreplaceable There is no other leader for whom I feel greater gratitude and personal friendship.” However, Pahlavi ended his days in exile in Egypt due to successive refusals to receive him from at least 6 countries, including the United States.

The consequences of the regime change in Iran produced a rearrangement of the political balance of the region. The United States lost an ally and won an enemy; President Carter failed in a military hostage rescue operation losing his re-election, it came to a cruel war between Iran and Iraq, a declared enemy appeared to Israel, the Palestinians continued in no man’s land, the differences between Shiites and Sunnis deepened, Saudi Arabia joined the enemies of Iran, while China and the then Soviet

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Union kept their distance with the new Tehran regime because it was not a proletarian revolution but a religious one, highly risky for their interests due to the existence of Muslim minorities in both countries.

Four sub-regional powers today dispute the hegemony of the area: Saudi Arabia, Israel, Turkey and Iran. All have, of course, strengths and weaknesses. The Saudis are rich in oil, with a medieval dictatorship that governs them, but they count on the unconditional support of the US and in general on powers turning a blind eye on them. The Israelis feature development, powerful armed forces, intelligence services, nuclear weapons and have, like the Saudis, the full support of Washington. The downside is their isolation within the multilateral system, international condemnations for their land ownership policies and the unresolved situation in Palestine. Turkey was a great empire controlling an important part of the region, has a privileged strategic location and is a key partner of NATO. Today the situation has changed with the nationalist government of President Erdogan, who has taken a distance from the United States for his support of the Kurds in Syria, the attempted coup and has also moved away from Europe, which has slammed the door regarding their claims to enter the European Union. Iran has consolidated a 40 year-old revolution, resisted a war with Iraq and the US blockade. Rich in oil, it controls the strategic Strait of Hormuz, where a fifth of the world's black gold transits and which is its best defense against any external threat. Its weakness is the economic decline, the mono dependence on oil, the high rate of perception of corruption, the religious fundamentalism of the ruling elite and the fatigue of people who want stability, consumption, peace and the end of the blockade. With 82 million inhabitants and 1,745,150 million km², it is 2.7 times larger than France in territory. According to the World Bank, its per capita income for 2017 corrected by the PPP was \$ 19,098. The IMF figures indicate that the growth rate of its economy for the 2010-2017 period was only 1.33%. Of the public budget, 20.6% goes to health, 20.6% to education and 15.7% to defense.

The United States has played various cards in Iran. From declaring the former ally a public enemy after the hostage crisis which began in 1979, to selling them weapons during Ronald Reagan's presidency, in the middle of Iran's war with Iraq, despite the fact that Washington supported the latter and ignoring the express prohibition of the US congress. In the "Iran-gate" it was discovered that the CIA, with the consent of Israel, sold missiles to Tehran during the war and with that money financed "the Contra" or dirty war in Nicaragua, to prevent the Sandinistas from consolidating in the power. After the attack on the twin towers in New York, in 2001, Iran proposed and offered the US government to fight together against Al-Qaeda terrorism and the Taliban regime in Afghanistan, but that was rejected a year later, when President Bush Jr. declared that there was an "Axis of evil" composed of Iran, Iraq and North Korea. Today, when President Trump meets regularly with the North Korean dictator and maintains troops in Iraq, we can assume that two of the three countries have abandoned that category. Seen in another way, it is the national interest that overcomes the principles.

More complex is the US abandonment of the nuclear agreement signed with Iran in 2015, called the Joint Comprehensive Action Plan, or JCPOA, for its acronym in

English, by the United States, Russia, China, United Kingdom, France and Germany after two years of talks. With this it was guaranteed that Iran would not be able to enrich uranium for the manufacture of nuclear bombs for 15 years, and all nuclear sites and plants were left open to inspectors for review, along with other reassuring measures especially important for Europe. The agreement was a successful diplomatic negotiation attributed to the will of former President Barak Obama, and for the diplomacy of the European Union for being one of the few achievements that it can show in foreign policy. The rupture of this agreement by President Trump was concluded by Saudi Arabia and Israel, which is not surprising, nor is the announcement that the United States will deploy troops in the Saudi kingdom after 16 years. That is, the murder of journalist Jamal Khashoggi that occurred at the Saudi Consulate in Istanbul has already been forgiven. As the press has reported extensively following the leaks of the British Ambassador's messages in Washington, President Trump acted primarily motivated because it being a complex and successful negotiation attributable to his predecessor. "It was an act of diplomatic vandalism driven by personalist motives," wrote today former British ambassador Kim Darroch.

We will have to see what position the new London government led by Boris Johnson, a close friend of President Trump, will take. This not only alerts the world to the possibility that, once the agreement is broken, Iran is free to enrich uranium and in a relatively short time can develop a nuclear bomb. If so, how long would the international community take to recognize its status? Recall that Israel, Pakistan and India did not ask anyone if they could develop nuclear weapons and did so despite threats of punishment against these last two countries that were subsequently sanctioned. Soon the sanctions disappeared and were recognized as atomic powers. Today nobody questions them. More serious is the fracture between the United States government and its European partners where the eyes are increasingly divergent on central issues of world politics. In the words of journalist Roberto Savio: "President Trump has no foreign policy, only an internal one."

Iran also does not make it easy in the international field. It denies the right to Israel to exist as a State, maintains an open conflict with Saudi Arabia that takes place in Yemen, supports Hezbollah militias in Lebanon that have broad popular support and is accused of terrorist actions such as the attack on the headquarters of the AMIA, in Buenos Aires, in 1994. Nothing indicates that tensions between Washington and Tehran will diminish. Only the next American elections can stop the warmongering escalation. An election could not be won by President Trump with corpses of US soldiers arriving in plastic bags back to the homeland. Iran neither wants to neither is able to face a war with the main power of the planet. As much as they can count on moderate Chinese and Russian support in the multilateral or especially military field. The wear and tear of its economy and fatigue of its people could be devastating. Maybe other powers in the region do want a military conflict.

When traveling through Iran, to cities like Isfahan, Yazd, Shiraz or the mythical Persepolis, once you enter in confidence when chatting with young and old, you feel the exhaustion of the religious revolution. People want to consume, they don't want

to hear about war, of which they already had 8 years with Iraq, with thousands and thousands of dead. Once I was able to attend a protest on a Thursday night under the bridges in Isfahan where they gather to sing and shout slogan against the government. There were not many, but young people - always the engine of changes in any society, tired of controls, tired of prohibitions, with a desire to drink freely, without guilt. In Iran, shopping centers and outlets, although it seems difficult to believe, do not differ greatly from those that can be found in any Western country. Restaurants show off flags from many countries including the United States. People can order anything by phone from beers to whiskey - drinks are delivered to the houses. Of course, this is illegal, but somehow tolerated and just a matter of paying. It is true that the guardians of the revolution can come to a house to control, but people pointed out that when this occurs, with a little money it is also fixed.

Revolutions burn out if there is no obvious economic progress for people. Democracy can wait, this seems to be the norm, but not economic welfare. Iranian society, the Persians, are an ancient people with a refined, rich, diverse culture that has already had enough conflicts and tragedies. They aspire to material progress without renegeing on their Muslim tradition, mostly Shiite; they want more freedom to move around the world, to decide if they want to consume alcohol, women to lift the veil, not hide their sexual preferences, and so many other spaces that are currently denied. They want to travel the world, visit the diaspora that is distributed among the United States, Canada, Australia and countries of Western Europe mainly. In other words, they want to be like any citizen of a democratic society.

Journal

Global Policy and Governance

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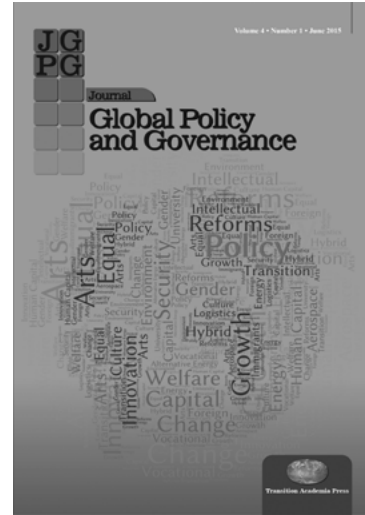


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Journal of Global Policy and Governance Aims and scope

Global governance is a challenge of our era and us as human beings no matter where we live and what values we believe in. After a 100 years of development, international relations are so closely and tightly knit. A problem in a community might affect the life of the people in a remote part of the world and its solution might also be in the hands of these people but can't be assumed outside the more global International Relations theories and practices approach, an interrelated already practiced at every policy decision making, economic and financial levels and first of all by the main powers.

How can we manage this complex of various relations matters for our life and common future? It is the time for us to invest our wisdom and energy to make global governance work now and to give a sense to the United Nations already reduced to a zero-sum-game playing on the major emergencies and conflicts due first of all to the obsolete veto system that would be at least extended to all the 15 countries of the Security Council, being them permanent or at rotation, with the weighting of votes bringing less hypocrite the present five Jalta powers partition already 70 years ago. We are talking of the world not existing anymore.

There is no simple way and framework for global governance. Global governance is a general term which means to think globally and act globally. It is complicated because problems might be local. It is complicated because problems might be also global. It is complicated because the solution of problems might be local but also in a global framework global. That is why we need to check issues case by case carefully. We need to sort out what solution is the best choice for the problem. We need to identify who should be the persons of good will taking the challenge and adding their intellectual and scientific capabilities to the human destiny. We have to take an action worldwide. Global issues are definitely the subjects of global governance. Meanwhile,

global governance takes care of issues with local reasons and local solution because we believe the experience might be helpful for people living in other parts of the world. Interdependence of International Relations with finance, economy, technology, research and advanced knowledge until a few years ago unimaginable, new military might introduced by innovation must be some of the crucial challenges, where also our Journal Global Policy and Governance intends to contribute opening its pages, issue after issue, to faculty, experts, testimonies, articles and relevant review of books, junior researches working papers. But we know also that traditional conflicts would not have any perspective in the medium term and will bring to the defeat of the ones who are imagining a return to the past.

We intend to embrace and reach all the possible interested colleagues and fellows around the world, as choices and strategies in all the sectors involving public and private governance, nobody excluded, are under questioning and innovative evaluation. Global world is not anymore a provocative statement, a kind of utopian return to realism and the theories dominant up to the German reunification, the end of Soviet Union and the war in the Balkans have now become obsolete by definition.

Middle East, Black Sea, Eurasia, Ukraine, Baltic, Turkey have the capability to reshape the future. Even if they are now in the middle of the fire, soon the devastations and impressive mass killings will be overcome and reconstruction taking the lead in many of these countries.

But why not underline the successful 30 years development and growth of China, a unique case in the last 500 years. China is the third world power, after European Union and USA, and has now similar problems we have encountered and are still facing nowadays, needs to find a political solution to reforming and giving voice to an accountability to its almost 1 billion 500 million inhabitants.

We really have to rethink the International Relations and the theories of Global Governance and Policy Choices, accepting the pluralities of institutional architectures and ways to give voice and accountability to the citizens. The European Union represents a “non Statehood” institutional governance, without even a Constitution and the Sovereignty belonging to the member countries. Do you believe the EU will change its architecture established by the Treaty of Rome in the future? This is an illusion of the antagonists of the different strategies and policies that were adopted right up to the Euro and the high welfare and technologic standards already achieved, even in the face of a crisis on 2008 that from the Atlantic arrived to Europe three years later and is now affecting East Asia. By 2020 we will be out of this tunnel everywhere in the world. To add a valuable contribution to this scientific debate is our very aim and scope.

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Papers

- | | | |
|---|--|-----|
| S. A. Yakubovskiy;
T. A. Rodionova;
A. O. Kyfak | Inflow of Foreign Capital as a Factor of the Development of Current Accounts of the Eastern European Countries | 3 |
| N. Teremtsova | The problem of differentiation between private and public law | 15 |
| O. I. Rogach; O. I. Shnyrkov; P. V. Dziuba | Skewness-Based Portfolio Selection: Implications for International Investing in Frontier Markets | 23 |
| Saeed Yazdani;
A. Hoseinpoor;
R. Moghaddasi | The comparative Advantage in the main exporting countries, flower and ornamental plant sector | 39 |
| A. A. Baghestany;
H. Sherafatmand | Asymmetrical Linkages between Exchange Rate Shocks And Investment in Agriculture | 55 |
| G. Gockov;
A. Antovska | Western Balkans countries income convergence in the context of EU membership – dynamics and determinants | 69 |
| B. Dash;
N. Sandhu | Time banking concepts as an effective tool for healthcare access in UK | 85 |
| A. Arifi;
B. Fetai;
S. Qirici | Youth transition from school-to-work: Empirical evidence from five transition countries | 101 |
| R. Kalim; I. Faiz;
N. Arshed | Investor Confidence and Asymmetric Effects of Terrorism - A case of Pakistan | 113 |

Opinions

- | | | |
|----------|---|-----|
| F. Ayala | Samarkand, on the Silk Road | 125 |
| F. Ayala | Ethiopia, Where Humanity Began Its Long March | 131 |