Long Abstract

What kind of role the Parliament played during the industrialization of Britain with its legislative act? And, what motivations were hidden behind it? There is enormous amount of literature on the “origins” of Industrial Revolution, and the substantial part of this literature is about the role of institutions, politics and property rights. However, institutional adjustment plays key role not just in the first emergence of the technological and economic development but also to make it “sustained” with its “enabler” role after the growth started. We know this very well from the past examples of France and China in the way that “poorly-adjusted” institutions may cause to stagnate or even to peter out of economic growth altogether. However, Britain during Industrial Revolution has mostly been proposed as the “good” example, if not “perfect”, regarding to make economic development “sustained” with its institutional adaptation. For this reason, trying to understand the role of Parliament and institutional change during this process seems like very relevant investigation that can provide insights regarding the role of institutions and politics in economic development process.

This paper focuses on British Parliament as the supreme authority for legislation, and for that matter, for institutional change, between 1748 and 1832, starting from a few decades before Industrial Revolution and ending with the dramatic change in the composition of Parliament with 1832 Reform Act. Cotton textile industry is chosen as a case study since it is the firstly mechanized leading sector of this period, and very well representative of the whole industrialization process. The study exploits the “Acts of Parliament” for legislation and

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“Parliamentary Debates” for debates behind this legislation process in every session of Parliament from 1748 to 1832 as its main data sources. Both sources exist in Parliamentary Archives of the UK Parliament but they are also partly available in scanned and digitalized format on the internet. To analyse the sources and address to the main questions, the study categorizes and codes the acts and debates on cotton industry by their subject matter (such as “external trade”, “taxation”, “labour rights” etc.) and creates a newly constructed database to be able to reach certain descriptive statistics and time-series graphs. These statistics and graphs are supported by qualitative text analysis and secondary empirical sources on cotton industry, expressed in an analytical-narrative form.

Preliminary results show that the legislation and debates in the Parliament display high correlation with the growth of cotton textile industry in the economic realm, which is the indicator of well-adaptation of institutions to new economic developments. Periods of technological breakthrough and industrial expansion are also the periods of high level of legislation and debate even though the strength of this correlation substantially decrease after 1815. Despite the existence of interest conflict, British political elite was mostly supportive to the cotton industry with its protectionist external trade and taxation policy, and with its oppressive attitude to the technologically resistant social forces to protect physical capital. In this support, in addition to the influence of well-organized cotton lobby, particularly the debates show that “enlightened” mind-set of the political elite on economic matters and their competitive economic concerns regarding the possibility of other countries’, especially France’s, “catch-up” played key role.

Key Words: Industrial Revolution, British Parliament, Cotton Textile Industry, Legislation, Debate
1. INTRODUCTION

Impact of institutional framework of a society on its technological and economic performance is a long-debated topic. Institutions, as stable rules of human behaviour and mechanisms of social order, condition how economic relations are organized and carried out. In its simplest form of “institutions matter”, their importance is emphasized by many different type of historians and social scientist. When China was on the brink of an industrial revolution but failed to do it, the blame was its institutions (Mokyr, 1990). In Britain’s success in 19th and its failure in 20th centuries, the blame was again the institutions. France was not as developed as Britain because its institutions was not as effective as Britain (Moe, 2009). Sweden’s performance was relatively poor after 1970s, because it could not adopt its institutions to the new conditions² (Olson, 1982). In recent year, there are arguments that technological revolutions necessarily require institutional adaptation to be able to flourish properly. This happened in every technological revolution and our age is not is not an exception. We are living in an age of transition, and this requires necessary institutional arrangements to open the way for upcoming green technology and sustainable development (Perez, 2015; also Schön, 2013).

This importance of institutions makes understanding the role of institutions in techo-economic performance of societies in the history more crucial. Institutions particularly plays key role in transition periods (Perez, 2010; Schön, 2009). In that respect, as a main turning point in human history, British Industrial Revolution (IR) deserves special attention. Despite the existence of huge amount of literature on this big and popular phenomenon the role of institutions in the process is not exactly revealed. One reason behind this problem is that it is very common in the relevant literature to explain IR within the limits of macro-economic factors (O’Brien et al., 1991: 394-395). Although, these explanations are not incorrect, majority of them ignore the contribution of institutions.

On the other hand, the studies focuses on the role of institutions, generally academics in new institutional economics tradition, mostly concentrates on either property rights or representative government (North and Weingast, 1989; Acemoğlu et al., 2005). In the same vein, although these explanations are valuable, they mostly address to the first emergence of IR. However, hypothesis of this study is that, how IR became sustained after its first irruption and what kind of role institutions played can best be understood by focusing on the long-term role of British Parliament during this process, and this “enabler” role of the Parliament is overlooked in the

² See Ljungberg, 2016 for a counter argument.
literature. This study aim to fill this gap by focusing on the long-term role of Parliament during First Industrial Revolution with a focus on its interaction with cotton textile industry and other leading sectors of the Revolution from 1748 to 1873.

1. THEORY AND LITERATURE

2.1. Technological Change, Socio-Economic Development and Institutions

Relationship between socio-economic development and institutions very broad topic discussed in the literature in many different approaches, which we can only mention some notable ones. Most popular approach on the relationship between economic development and institutions is the new institutional economics which emphasize the crucial role institutions (social and legal norms and rules) played on economic growth before and after Industrial Revolution with a high emphasis on the role of transaction costs and property rights (Acemoğlu et al., 2012; North, 1989; 1990; Rutherford, 2001). Although, it lost its popularity in time, Marxist economics’ distinction between “productive forces” and “relations of production” (Marx, 1867) refers to the relationship between technological change and institutions. In particular, French regulation school identifies the changing structure of capitalist institutions in different periods of capitalism (Aglietta, 1979; Boyer, 1990). Some technology oriented approaches such as theory of socio-technological change (Geels, 2004; 2010) come up with the argument that new techno-economic developments requires new institutions to flourish (Berg & Bruland, 1998; Lipsey, 2009; Tunzelmann 2003).

This study builds its conceptual framework on neo-Schumpeterian “long wave” approach, identifies “socio-institutional framework” as the main “enabler” of the developments in techno-economic framework. This “technological determinist” perspective (not necessarily in a pejorative sense), gives ultimate priority to radical/macro innovations and technological change during long waves, or “industrial/technological revolutions” as it is called. In every technological revolution, certain radical innovations constellated and creates “development blocks” (Dahmen, 1988) that rejuvenates whole economy and society in recurring decades-long periods. Moreover, technological revolution creates its own techno-economic paradigm, which is an over-arching meta-paradigm or shared best practice “common sense” in economic activities and behavior of agencies (Freeman & Perez, 1988; Freeman & Louca, 2001; Perez, 1983; 2002; 2010; Schön, 1991; 2009; 2012).
Perez (1985; 2002) makes a distinction between “techno-economic sphere” and “socio-institutional framework” in society. During first diffusion of technological revolutions, there emerge “mis-match” between these two spheres because existing socio-institutional framework is designed for the need of previous techno-economic paradigm. However, this new technological revolution requires for new institutional setting which is tailored for the new techno-economic paradigm, to be able to deploy its full potential. Therefore, socio-institutional framework of society is re-structured and the resulting social and institutional transformations then determine the general shape of economic development, or the “mode of growth” of the next long wave. Schön has similar theory on institutional adaptation to new conditions, created by radical innovations that form development blocks, to favor new innovation and investment patterns (1998; 2012). During this process, there is high risk of society cannot manage to make necessary institutional arrangements because of path-dependency, routine or vested interest of technologically regressive forces (Perez, 2004; Moe, 2007; 2009).

2.2. IR, institutions and Parliament

Theoretical implication of neo-Schumpeterian long-wave model of institutional adaptation is that British Parliament must have played a crucial role to “enable” the IR by making necessary institutional arrangements. What institutional arrangements Parliament did during Industrial Revolution to make economic growth sustained? The literature proposes limited information regarding to this question. This is mainly because, as indicated above, main debate on institutions focuses on the property rights.

Joel Mokyr is one of the few economic historians who discusses the contribution of state and formal institutions to IR process by emphasizing the importance of “enlightened” public-authority holder elite (2008; 2009). Although it is important contribution, Mokyr’s main focus is the role of “enlightened” ideas in the emergence and duration of IR, not specifically the role of Parliament during this process (also McCloskey, 2016; Mokyr, 2017 on the role of ideas and culture). Moreover, his studies lack of making systematic analysis on the subject probably related with his emphasis on difficulty to measure institutions. However, this study aims to make a more systematic analysis by trying innovative techniques to measure amount of legislation (see below).

One other important contribution to the role of Parliament is O’Brien et al.’s article (1991), which discusses the role of interest conflict among different branches of textile industry from
1660 to 1774. Distributive role of government by regulation economy and reconciling different rent-seeking interest is already a crucial element of commercial capitalism and its mercantilist doctrine (Root, 1991). O’Brien emphasize the importance of how British Parliament reconciled these interests for the mechanization of cotton textile later and developed as the paradigm industry of IR. Our study is, somehow, continuation of this article with a focus on period after 1774 and acts of Parliament on vested interests of technologically loser groups (also Smelser, 1959).

One question to answer in this point is that why institutions and in British case, Parliament was so crucial to render IR sustained? This comes from the fact that main driver of socio-economic change is technological development (Schumpeter, 1911; 1935) and technological change is a political phenomenon as much as an economic one (Mokyr, 1990; 2002). It is very common in history that after the creative destruction of economy inevitably certain “loser” groups emerge, whom capital and skills are no more relevant related with the new technology. It is highly possible that these inertial social forces after a while may use extra-economic and political means by rent-seeking to be able to intervene to the economic processes in their own favour such as demanding the prohibition of technology or necessary institutional changes to their own advantages (blocking market entrance, using taxation as punishment or demanding subsidy from government). These rent-seeking activities may take many different form ranging from collective bargaining by riot to lobbying in Parliament (Harris, 1997; Mokyr, 1992; 1998). Without directly referencing to technological change, this is exactly what Mancur Olson (1982) calls hindering of economic growth with the impact of “distributional coalition’s” vested interest, which causes sclerosis in the institutional framework (also, Moe, 2007; 2010).

At first instance, this kind of resistance to technological change and rent-seeking activity may be considered only as a part of commercial capitalism and mercantilism in economic (Mokyr, 1990; 156-157; O’Brien et al, 1991; Root, 1991) and cultural conflict (Juma, 2016; Mokyr, 2017). Or, it can be considered also only part of early phases of IR with Luddite riots against the mechanization of cotton industry (Sale, 1995). However, there are many other examples of resistance to technological change by using political means such as the resistance of canal owners to the repeal of Bubble Act (1720) to prevent the railway construction (Harris, 1997); resistance of mill-owners to transition from water-powered to steam engine-powered mills in mid-19th century in Sweden (Johansson, 1998) and Norway (Sejersted, 1998); lobbying activities of synthetic dye industry in Germany late 19th century (Murmann & Homburg, 2003) farm mechanization in USA in early 20th century (Juma, 2016).
From a teleological perspective, demolishing vested interests of inertial forces in society can be considered as a minor problem in the techno-economic development process of societies, which is just a small impediment to get rid of as soon as possible for future technological breakthrough. However, historical examples claim the opposite. China’s failure of making any industrial breakthrough despite the availability of conducive conditions is related with Chinese state’s favouring social order over technologically disruptive forces in society (Mokyr, 1990), which to a certain extent can be generalized other state-centered Asiatic empires (Marx, 1867). Maybe not a blocking of a breakthrough of industrial development but lagging behind of France from Britain in 19th, and Britain’s lagging behind of USA and Germany in 20th century attributed to these countries’ inability to adopt their institutions to new techno-economic conditions (Moe, 2007; 2010; Olson, 1982; 2000). Similar arguments are proposed for relatively poor economic performance of Sweden in 1980s (Olson, 1991) and different type of world-scale energy transitions or carbon lock-ins in late 20th century (Nye, 1998; Ayres and Ayres, 2009; Moe, 2010).

In this context, this study seeks answer to the question, what type of role British Parliament played to provide necessary conditions to render Industrial Revolution sustained?

- What type of pattern this role show in the long-run? Can we identify different periods?
- What type of policy/reaction implemented/given by the British Parliament in every identified period to the developments in techno-economic sphere?

2. RESEARCH DESIGN

3.1. Research Choices and Conceptual Framework

The study focuses on the period called “First Industrial Revolution” (1st IR) (c. 1770s to 1890s) (Freeman & Perez, 2001; Schön, 2012) to be able to narrow the scope down and make it manageable. More specifically I will focus on the years between 1748 and 1873 (c. 125 years). The logic behind this choice of time frame is that, firstly, the study starts a few decades before when Industrial Revolution started (c. 1770s) to be able to capture the institutional change that comes with it. And it ends in 1873 because during 1870s new wave of radical innovations, which characterize the “Second Industrial Revolution”, started to emerge such as Bessemer steel, electrification of industry and interchangeable parts (Freeman & Louca, 2001: 141).
1870s are also the starting period of “long economic depression” process that spanned 1873 to 1896.

Spatial focus of the study is Great Britain (until 1800) and United Kingdom (after 1801). This choice comes from the fact that United Kingdom is the undisputable technologically leading country during 1st IR, which means socio-institutional adaptation first and “best” manifest itself in this country. After 1870s, it gradually started to lose its leading position to USA and Germany.

Main challenge in this study is to be able to operationalize the variable of “institutional change” for long-term analysis as difficulty of measuring institutional change mentioned in the literature many times (Mokyr, 1992: 337). To this aim, I believe, it is a good idea to start with making some clarifications on institutions in the study to make it more “manageable”. Institutions can be divided into two categories: Informal (customs, traditions, codes of conduct etc.) and formal (constitutions, statutes, decrees etc.) institutions (North, 1990). This study focuses on formal institutions since they have priority in society, and examination of informal institutions requires different approaches than formal institutions.

Within formal institutions, the study will focus on Parliamentary activities of United Kingdom (both House of Commons and House of Lords) because the Parliament –not the crown, the courts or any other institution- is the highest authority in British society since “Glorious Revolution” of 1688 (Root, 1991), which is called “Parliamentary sovereignty/supremacy” (Sodaro, 2009: 401). In other words, Parliament, by changing the “rules of game” with every act, is the main place where “institutional change” happens. More specifically, I will focus on the “acts” or “statutes” of Parliament instead of “constitutions” and secondary legislation as decrees because constitutions are too broad to explore the impact of techno-economic change, and decrees and regulations are “secondary” legislation, i.e. less important than “primary” acts. In short, my main focus will be “Acts of Parliament of Great Britain” (until 1801) and “Acts of Parliament of United Kingdom” (after 1801) to be able to measure the impact of technological transformation on institutional change.

The Acts of Great Britain/United Kingdom include both “Public General Acts” and “Local and Personal Acts”, both of which are integral part of British legal system. Public Acts are type of

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3 Parliament is an institution per se but conceptually my focus is institutions as “rules of game”, not institutions as “organizations”.
acts that apply to everybody across the country whereas local and personal acts apply to a
specifically named locality or legal person in a manner different from all others. Since, main
institutional change manifests itself in public act, and local and personal acts are secondary to
the public acts, in this study, only public acts are examined.

As representative of techno-economic change, I focus on “technologically leading sectors” of
economy. This framing of the research depends on neo-Schumpeterian argument that
technological progress depends on major innovations (Mokyr, 1990) and the major innovations
prompts the development of leading/carrier sectors/branches of the economy (Rostow, 1960;
Schön, 2012). Later, these leading sectors constellated around “technological systems”
(Freeman & Perez, 1988) or “development blocks” (Dahmen, 1988; Taalbi, 2016).

During 1st IR, we identify rise of two subsequent development block:

1) Constellated around Cotton and Iron industries in 1770s
2) Constellated around Steam engine and Railways in 1840s (Mokyr, 1990; Freeman and
Louça, 2001).

3.2. Data

3.2.1. Acts of Parliament

The Acts of Parliament of Great Britain and United Kingdom is gathered in different volume
series in different periods. There is not one series that includes all the Acts. Therefore, I garner
the Acts of Great Britain/United Kingdom from three different volumes, which are compatible
with each other⁴.

Acts of Parliament of Britain for 1748 – 1806 period is taken from:

Britain, G., & Pickering, D. (1748-1807). The Statutes at Large, from the Magna Charta, to the

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⁴ All volumes of “Acts of Parliament” can be found in the internet thanks to the related Google project. However,
they are quite disorderly and scattered to the different websites. It requires substantial effort to find them and make
them organized and ordered. Also, some of them have optimal character recognition (OCR) and some do not.
Therefore, some volumes’ OCR is carried out by the researcher of this study.

1807 – 1836 period is taken from,

Great Britain. (1807-1836). The Statutes of the United Kingdom of Great Britain and Ireland, London: His Majesty’s Statute and Law printers.footnote{6}

1833 – 1873 period is taken from,


3.2.2. Parliamentary Debates

“Parliamentary Debates of Great Britain” and United Kingdom” is exploited to understand the background of certain acts as well as incentives and mindset of parliamentarians especially at the beginning of IR.

Until 1802: Cobbett's Parliamentary history of England. From the Norman conquest, in 1066, to the year, 1803

After 1802: Hansard Archives: https://hansard.parliament.uk/


3.3. Methods

To be able to discern long-term patterns between Parliament and leading sectors, first, I will use basic counting and coding of public acts. Then, I will use the method of “content analysis”, which is mainly used in sociology field, to examine Parliamentary Acts. Content analysis is the analysis of “the manifest and latent content of a body of communicated material through classification, tabulation and evaluation of its symbols and themes in order to ascertain its meaning and probable effect” (Krippendorff, 2014: xvii). In our case, communicated material to be examined is Parliamentary Acts and the symbols of First Industrial Revolution. To this aim, the study codes the frequency level of certain key words that are directly representative of 1st IR. The assumption in here is that if these key words are mentioned within an act related with one leading sector, this means there more institutional change is going on related with that sector. In other words, frequency of the mention of the key words gives the “level/amount/magnitude” of the change. Key words are “cotton” for cotton textile industry, “iron” for iron industry, “engine” for steam engine industry and “rail(ways)” for railway industry.

In the second and third parts of the empirical findings, I will explore the critical acts and the debates behind them both for entire economic system and cotton textile industry, and support my findings with secondary empirical literature. I will use “reasoned history” method for this

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8 Notice that word of “textile” is not used at all in the Acts of Parliament.
interpretation. Reasoned history is analytical and systematic analysis of long-term historical events explained in qualitative narration (Freeman & Louça, 2001; Mahoney and Rueschemeyer, 2003).

3. **EMPIRICAL FINDINGS/RESULTS**

3.1. **Trends/Patterns**

Formal institutional change does not happen with the same pace in every period of history. In certain times, change is faster than others. Although it is not very easy to measure this change (Mokyr, 1992), total amount of public act passed from the British Parliament every year gives an idea about the volume of change took place every (under the assumption that “more passed act, more formal institutional change”). The following graph gives the total number of public acts enacted every by Parliament from 1750 to 1873.

**Figure 1: Total Amount of Public Acts: 1748 - 1873**

Total number of public acts passed every year is important indicator to understand the trend between Parliament and general society. However, IR is, first and foremost, an “economic” phenomenon although it inevitably impacted every aspect of human life one way or another. For this reason, it is plausible to focus on “economy-related acts” (production, trade, finance, taxation, government budget etc.) by removing “non-economic acts”, which are mostly on military, judiciary, administrative, religious and criminal issues.
However, the following graph shows that “total number of acts” and “total number of economic acts” follow the same pattern in the long-run.

**Figure 2: All Public Acts and Economic Acts: 1748 - 1802**

This graph can be interpreted in the way that Parliament follows the same trend in its legislation to both general societal matters and economic issues. This is not surprising when it is observed in the following graph that economic acts comprise the substantial majority (overall 79%\(^9\)) of total public acts.

**Figure 3: Share of Economic Acts within All Acts: 1748 - 1802**

\(^9\) This number (0.7862) is used to find the estimated number of “economic acts” after 1802. The assumption in here is that ratio between “total number of acts” and “economic acts” will be same. Although it does not have to be, I think discrepancies would not change the general long-run trend.
It is possible to reach certain conclusions from the trend of both total and economic legislation between 1748 and 1873. First off, the graphs are in line with general historical trends and neo-Schumpeterian conceptualization of history (Freeman and Louça, 2001: 147 and Schön, 2012: 16-17). Until 1780, the amount of legislation shows gradual increase while it makes its real “breakthrough” after 1790s, which can easily be interpreted as the institutional adaptation to the new comprehensive transformations in techo-economic sphere of society, in other words transition from commercial capitalism to industrial capitalism. There is a “turning-point” in 1810s, with a sharp decline afterwards in the volume of legislation. However, it is observed another rise after 1830s, most probably related with rise of another development block constellated around steam engine and railways. This rise shows signs of decline after late 1860s, which is similar to what is observed in 1810s.

It is possible get into deeper these trends and asks whether they would give same or similar results when the focus is cotton industry and other leading sectors, not total economic legislation. The following graph impose the mentioning frequency of “cotton” on number of economic acts between 1750 and 1873.

**Figure 4: Economic Acts and Mention of “Cotton”: 1750 - 1873**

The patterns are surprisingly similar to each other. Mention of cotton shows very sharp increase in 1770s and 1780s with the impact of radical innovations and expansion of production in the industry, which requires new legislation and regulation (also notice that there is modest increase in economic acts as well in this period). After this wave, the mention shows substantial decrease
in 1790s but it starts to rise again by following the same path with economic acts. Similar to economic acts, there is a turning point in 1810s but notice that legislation on cotton industry decrease gradually after 1810s with small ups and downs, despite the rise of economic acts after 1830s.

To be able to make a double-check, “number of acts passed every decade directly on cotton industry” can be useful indicator in addition to “mention of cotton”.

**Figure 5: Number of Acts on Cotton Industry in Decades**

**Figure 6: Classification of Acts on Cotton Industry**
The graph (5) shows acts on cotton industry both “customs-included” and “custom-excluded” figures\(^\text{10}\). However, the result and trends are same: rise in 1780s, decline afterwards and re-rise in 1800s and 1810s and another decline.

Both graphs show that there is a clear discrepancy between trends of economic legislation and legislation on cotton industry. This discrepancy is totally in line with the observation that after 1830s the rise in economic legislation is related with different type of development block than cotton industry (Freeman & Louça, 2001: 188). Related with this, we observe gradual decrease in the number of acts related with cotton industry.

This argument is supported when “mention of engine”, which shows the amount of legislation related with all type of engines and machines, is imposed on Graph 3:

**Figure 7: Economic Acts and Mentions of “cotton” and “engine”: 1750 - 1873**

The mention of “engine” shows similar trends with economic acts and mention of “cotton” with some differences. Similar to them, it has short-time up-and-down trend in 1770s, related with the first introduction of technology, then another rise and decline with a turning point in 1810s.

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\(^{10}\) Customs of United Kingdom are regulated every year and they are enacted as law. These acts mention the name of commodities some many times without referring to any change. For this reason, it gives more healthy results when these types of acts are excluded from coding.
However, “engine” makes another upswings in 1840s and 1860s, which is line with rise of economic legislation after 1830s.

The graph on economic acts and mention of “railways” complete this picture and provides another evidence on the argument about the fade away of first development, rise of another after 1830s and 1840s, and related institutional adaptation to this process.

It can be considered unusual that “engine” follows same trend both with first development block constellated around cotton and iron industries and second constellated around steam engine and railways. It is not that odd when we know that word of “engine” was used to define every type of machine in that era, regardless it works with steam, water or any other type of power. For this reason, trend of “engine” similar to both cotton and railways.

Figure 8: Economic Acts and Mention of “Rail(ways)”: 1750 - 1873

Related with its first introduction, legislation related with railway start to gain momentum in 1820s and makes two spikes in 1840s and 1860s. It is not difficult to observe the similarity of these spikes with similar ones of steam engine.

Finally, relative share of four leading sectors of First Industrial Revolution complete this picture:
The chart clearly shows that institutional change is more on cotton and iron until 1830s but it is more on engine and railways after this date.

3.2. REACTION/STANCE

In this part, main focus is the qualitative characteristics of the legislation periods identified in the previous title with a focus on cotton industry between 1774 and 1815 to be able to further examine the role of Parliament during IR.

Economic system in Britain from 16\textsuperscript{th} century to 1770s was “commercial capitalism”, in which wealth mainly comes from agriculture and commerce supported by proto-industrial manufacturing. Main economic doctrine is mercantilism. With these features, key economic interest conflicts and institutional change in this period (1748 – 1774 in this study) characterized by commerce and trade. Importation (or, Iron) Act 1750, (c. 29) or The Revenue Act 1766 (c. 52) were type of acts tried to improve the condition of Britain in iron and cotton manufactures\textsuperscript{11} (respectively) and to favour British merchants in expense of colonies by keeping these colonies as dependent raw-material exporters while supporting its own proto-industry. Similarly type of legislation as Currency Acts (1751 – 1773) or Townshend Acts (1767 – 1768) tried to protect

\textsuperscript{11} “No duty to be paid in America, on exportation from thence of any cotton, wool”.

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\textit{Figure 9: Four Leading Sector’s Relative Share of Legislation: 1750-1873}
the interests of British merchants but ended with the destructive American War of Independence (1775 – 1783).

Another feature of this period, related with the Parliament and IR, was the constant conflict and rent-seeking activities of different interest groups within different branches of textile industries. In this period, the Parliament did not hesitate to protect the fragile textile branches as cotton and linen from international competition with the impact of lobbying activities of interest groups. Most important one, regarding IR, was Calico Act 1721, which prohibits the use and wear of cotton in Britain to protect its market from the competition of India and to encourage other textiles branches of wool and silk. This act was repealed all together with Duty on Cotton Stuffs, etc. Act 1774 (c. 72). The repeal of the Act was directly related with the developments in cotton industry such as the opening of new cotton mills mechanized by new innovations and powered by water wheels. When it was weak, Parliament protected textile industry by banning cotton but it repealed the ban when cotton industry was able to develop and compete in international markets. This protectionist policy played a very crucial role on the development of in cotton industry and as a result development of IR (O’Brien et al., 1991).

The protectionist policy of the Parliament during commercial capitalist era on the crucial sectors of the economy was not just effective on the emergence of Industrial Revolution. It was also highly important to make it sustainable. In other words, Industrial Revolution took place in protectionist/mercantilist economy conditions and it is the argument of this study that it managed to survive with the help of these conditions (also see Bairoch, 1995). During the crucial period from 1774 to 1815, Parliament sustained its protectionist/mercantilist policy by keeping the competition power of cotton industry. To this aim, Parliament 1) Protected the physical capital from resistant forces to technological development, 2) Made modest improvements in the labour conditions 3) Enable the infrastructural investments, 4) Provided financial instrument for necessary capital investments.

12 “An Act to Preserve and Encourage the Woollen and Silk Manufactures of this Kingdom, and for more Effectual Employing the Poor, by Prohibiting the Use and Wear of all Printed, Painted, Stained or Dyed Callicoes in Apparel, Household Stuff, Furniture, or otherwise, after the twenty fifth Day of December one thousand seven hundred and seventy two”

13 “An act for ascertaining the duty on printed, painted, stained or died stuffs, wholly made of cotton, and manufactured in Great Britain, and for allowing the use and wear thereof, under certain regulations” (...)

“Any persons may wear and use the new manufactured stuffs”.
In the early phases of IR, British Parliament played very important role to prevent the vested interests of resistant social forces to block or delay the development of Industrial Revolution. Artisans and craftsmen suddenly became technologically loser groups with the emergence of radical labour-saving innovations of spinning machines and water frames in 1760s and 1770s, which made their skills abundant. These social forces, first demanded to prohibit the machinery in these industries. The Parliament immediately rejected these demands, and when technologically loser groups started to use collective bargaining by riot (including machine breaking, personal violence or arson) to prevent these machines to be used (Mokyr, 1990; Stevensson, 1979), it enacted Protection of Stocking Frames, etc. Act in 1788\textsuperscript{14} (c. 55). When, these groups started to form craft unions to increase their bargaining power, the Parliament passed Unlawful Combinations of Workmen Act 1799 (c. 81) and prohibited unions and collective bargaining\textsuperscript{15}. When another wave of, this time much stronger, riots by technologically loser groups emerged after 1810s called “Luddites” Parliament passed Destruction of Stocking Frames, etc. Act 1812 (c. 16) to increase the penalties to these groups. Finally, Parliament repealed the Statutes of Artificers with Wages, etc., of Artificers, etc. Act 1813 (c. 40) to prevent technologically loser social forces to refer this act to legitimize their claims. This act was also an important step to the liberalization of labour market (Mokyr, 2009: 67).

Although most crucial role the Parliament played during this era was the repression of technologically loser groups to prevent them to block the development of technology and industry, Parliament made other important institutional changes to provide necessary conditions to new industries take off. One of them is Restriction on Cash Payments Act 1797 (c. 45). By removing the requirement for Bank of England to convert the bank notes into gold, this act prevented a possible financial crisis and provided the necessary cheap credit for the development of new industries (Perez, 2002: 129), which is crucial component of economic expansion periods (Schön, 1991). In addition, Parliament pursued its mercantilist policy of encouraging its main leading industries in international trade (Flax and Cotton Manufacture

\textsuperscript{14} “An Act for the better and more effectual Protection of Stocking Frames and the Machines or Engines and for the Punishment of Persons destroying or injuring of such Stocking Frames Machines or Engines or breaking or destroying any Machinery contained in any Mill or Mills used or any way employed in preparing or spinning of Wool or Cotton for the use of the Stocking Frame”.

\textsuperscript{15} But, target of the Acts was not just technologically loser groups but whole unions in the industrial sector and the fear from rising revolutionary movements similar to France (Clark, 2016, Thompson, 1963).
Act 1783, c. 77), made slight improvements in labour rights (Factories or, Health and Morals of Apprentices, Act 1802 (c. 73), solved disputes between masters and workmen engaged in cotton manufactures (Disputes Between Masters and Workmen Act 1800, c. 90 and 1803, c.151) and enabled the big transportation investments in notable industrial counties or districts (Manchester, Bolton and Bury Canal Act 1791, c. 68; Westmoreland Canals Act 1792, c. 101).

As it is observed above, after-1815 is the period of decreasing legislation on cotton industry because all the necessary measures were already taken during 1774-1815 for the flourishing of the industry. After 1815, legislation on cotton industry was mostly on the regulation of factories, improvement the working and health conditions of workers (especially child workers) and solving the labour disputes in a series of Factory Acts starting from 1820s.

Economic policy of this era, which can be extended until 1840s, was definitely mercantilist as we can understand from the pass of Importation Act 1815 (c. 26) known as the "Corn Law". Although, the Parliament was protecting its leading industries against both international competition and lower classes such as artisans, it was still favouring the landlord interests over manufacture. However, this era was also a transition from mercantilism to laissez-faire capitalism, which culminated with the repeal of Corn Law altogether in 1846 (Importation Act 1846, c. 22). Parliament relaxed strict Corn Law of 1815 two times in 1822 and 1828 (Importation Acts c. 60 and c. 60). This shows the Parliament’s intention of finding some kind of balance between landlord and manufacturing interest.

Parliament repealed The Combinations of Workmen Act in 1824 (c. 95) but brought it again The Combinations of Workmen Act 1825 (c. 129) because the repeal ended with demonstration. The latest act was relatively more liberal in comparison to Act of 1799 because it was providing permission to the combinations for wage increase and working hours. Finally, the Parliament made changes in financial system with Coin Act 1816 (c. 68), Great Re-coinage of 1816 and Country Bankers Act 1826 (c. 46). Especially the latest act was making easier to issue bank notes, which was important to finance big investment project with cheap money (for importance of increase in money supply during large investment periods to provide cheap money, Schön, 1989).

Repeal of Bubble Act of 1720 in 1825 with Bubble Companies, etc. Act (c. 91) deserves special attention with its direct connection to the technology related political conflict during this era. Bubble Act 1720 was a typical mercantilist regulation that forbade the formation of any other joint-stock companies unless approved by royal charter. The repeal was a notable step to
liberalization of capital markets. However, it was important because the debates on repeal brought into confrontation canal-owners and railway promoters because the repeal was making the formation of railway companies easier, which was detrimental for canal owners. The debate and conflict constellated around railway promoters (supported by manufacturers, bankers and merchants) and canal-owners’ (supported by some land-owners and bishops) regarding Liverpool – Manchester railway line in 1825. Canal-owners, who do not want to lose their vested interest and monopoly over transportation, even argued “Railways are inefficient. Canals are superior” (1825, Hansard XII) to protect their privileged position in transportation of goods but in the end they could not prevent the repeal of the act. Thereby, the Parliament open the way to establish join-stock companies much easier both in railway industry and in other industries (Harris, 1997: 685-686).

The enactment of Poor Law Amendment Act 1834 (c. 76) to be able to cope with the unemployment and rural destitution refers to another notable institutional change during this era. It made comprehensive changes in the previous acts and fundamentally changed the poor relief system. The act is interpreted as to combat the social difficulties emerged with the structural crisis of 1830s and 1840s (Freeman & Louça, 2001: 184-186).

Method of “collective bargaining by riot” to be able to prevent labour-saving mechanization was used intensively in the early periods of IR especially in textile but also partly in agricultural and sawmill industries. However, after the repression of Luddite riots more legal methods started to be preferred as lobbying. Machine-breaking and rioting shows tendency to decline in 1820s and 1830s (Stevenson, 1979: 234). However, one last big-scale riot of the IR happened in the mechanization of agriculture, called Captain Swing Riots aiming at threshing machines (Mokyr, 1990: 140 and 257; Stevenson, 1979: 236-237). These riots between 1830 and 1832 became relatively successful by preventing the adoption of steam threshers vanishing from Southern England until 1850s (Moe, 2007: 58; Mokyr, 2002: 267). Outright resistance to technological change could not be successful permanently but it managed to delay certain innovations for years and sometimes caused to alter the base of industry from one geography to another (Mokyr, 1990: 258).
3. CONCLUSION

After an inquiry on the role of Parliament during Industrial Revolution by focusing on the legislation on leading sectors and using different kind of method of analysis, the study identifies 4 different periods. They can be summarized in the following table:

**Table 1: Legislation on Leading Sectors: Summary**

<table>
<thead>
<tr>
<th>Period</th>
<th>Economic system</th>
<th>Doctrine of Legislation</th>
<th>Legislation on Leading Sectors (trend)</th>
<th>Legislation on Cotton Industry (content)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1748-1774</td>
<td>Commercial capitalism</td>
<td>Mercantilism</td>
<td>Low level but gradually rising</td>
<td>Exploitation of colonies to pursue proto-industry</td>
</tr>
<tr>
<td>1774 - 1815</td>
<td>Transition to Industrial Capitalism</td>
<td>Mercantilism</td>
<td>Cotton industry shows substantial increase</td>
<td>Continue to exploitation of colonies; Protection of export industries; Repression of vested interests of technologically loser groups (crucial);</td>
</tr>
<tr>
<td>1815 - 1846</td>
<td>Industrial Capitalism</td>
<td>Transition to free market economy</td>
<td>Cotton industry shows decrease steam engine and railways shows increase</td>
<td>Legislation on transition to free market economy; Continue to favour economically productive groups as railway companies; Continue to repression of technologically loser groups</td>
</tr>
</tbody>
</table>
The results show that Parliament played different roles in different periods of First Industrial Revolution. This role was very crucial role after first irruption of radical innovations of IR in 1770s, especially with its protectionist/mercantilist policies and determination to suppress resistance to technological improvement. Without positive intervention of Parliament, especially during 1774-1815 period, there was a high risk of curbing economic development by certain social forces, if not to block industrialization all together. These results address to the importance of political factors during technological and institutional factors during economic development process.
4. REFERENCES


