Thanks to the generous support of the Japan Society for the Promotion of Science I was able to accept the kind invitation of the Faculty of Economics at Shiga University. I visited Japan from December 6 to December 20, 2014. The main purpose of my visit was to discuss with my Japanese colleagues new methods to analyze historical war economies. I advocated for two promising strategies, namely, first, for more international comparisons, and, second, for a stronger focus on the economic and social consequences of wars.

Various internationally comparative studies of the Second World War have already demonstrated that the rearmament preparations and the war economies of the combatants were generally far more similar than was realised at the time and many scholars have often suggested. The extent of the similarities might even imply the existence of an international model of a modern war economy constructed around the commonly-held characteristics of the different national economies. First of all, there are many similarities at the macroeconomic level. Many countries witnessed a dramatic rise of military spending on the eve of and during the Second World War; this led to a sharp decline in private consumption (usually enforced by price controls and rationing). Expenditure was often financed by money creation and also, on the part of the Axis powers, by exploiting the resources of occupied countries and appropriating the assets of minorities such as the Jews. This rise in military spending triggered a rapid and unexpected increase in armament production which, in more than one country, was christened an “armament miracle” or a “production miracle”. Most combatants’ war economies depended heavily on the import of raw materials and vital armament goods. Given the vulnerability of foreign trade during wartime, the availability of domestic strategic resources was therefore decisive for the outcome of the war.

Even more striking than any similarities at the macroeconomic level, is what can be said about the relationship between industry and government in national economies. For, notwithstanding the obvious ideological differences between states, many similarities clearly existed at the level of implementing and operationalizing armament policies. This implies that the Allied democracies used, by and large, the same means as the Axis dictatorships to foster armament
production. Finally, there are several similarities at the microeconomic level of armament firms. Of particular interest are studies that have looked at how production was organised. Analysing the data of 22 different aircraft types produced by American industry during World War II, Armen Alchian was the first post-war economist to observe that the direct amount of labour required for producing a unit of a special aircraft type regularly declined when the total output of this type was expanded. It appears that worker efficiency increases the more frequently a special task is repeated. Learning-by-doing by blue-collar and white-collar workers occurred in all kinds of industries, but the resulting increase in labour productivity was especially high when workers were given rather complex tasks - as was the case in the aircraft industry. In addition, their research confirms that there was a dramatic increase in inter-firm division of labour in the German aircraft industry. This allowed both the final-assembly manufacturer and the component suppliers to concentrate on their respective core competences and, thereby, economies of scale to be realised. Tetsuji Okazaki also claims that outsourcing production by expanding supplier networks was the most important reason for the “miraculous” acceleration of aircraft production in the Japanese war economy.

The international similarities of both the armament policies of governments and the microeconomic changes within firms suggest that it might be misleading to make a sharp distinction between the “market-oriented” war economies of the Western Allies and the “centrally-planned” war economies of Russia and the Axis powers. Instead, it should be rather assumed that the requirements of fighting a material-intensive, global conflict led all belligerents to build up the same type of modern war economy, heavily dependent upon state intervention, despite insurmountable ideological differences.

Most studies on the economic history of wars concentrate on the problems of the macroeconomic transition from a market-oriented peacetime economy to a more centrally-controlled war economy. In contrast, the long-term economic and social consequences of wars are often neglected. A notable exception to this rule is the ongoing discussion about whether a nation’s innovativeness is considerably spurred by government’s wartime activities. It is widely believed, for example, that major innovations like the computer and electronic semiconductors, synthetic rubber or jet engines owe their existence (or, at least, their comparatively early introduction) to the strong military demand for these products during the Second World War and the following
Cold War. In Germany, it is sometimes argued that this country’s participation in the Second World War fostered R&D, human capital formation and investment in new machinery and technology and thereby led to modernization and faster growth in the postwar period.

Tamás Vonyó argues against the modernization thesis. In his view, the dislocating effect of the Second World War on the German economy was much more persistent than previously believed. The impact of strategic bombing towards the geographical dislocation of productive forces has been demonstrated in his earlier work cited above. He shows how the division of Germany, as one of the major political consequences of the Second World War, slowed down productivity growth in West Germany for a decade because many traditional domestic suppliers of engineering and consumer products were now located behind the Iron Curtain and had therefore to be replaced by additional West German capacities. As this re-structuring of the German supplier networks took a considerable length of time, the “Wirtschaftswunder” of the early 1950s based primarily on factor accumulation but not on catching-up to more efficient economies.

In the four presentations I gave during my stay in Japan, I tried to highlight different aspects of this research agenda.

Presentation at Shiga University (10. Dec. 2014, in English):

**Guns and Butter – But No Margarine: The Impact of Nazi Economic Policies on German Food Consumption, 1933-38**

The German population's material standard of living during the ‘peace years’ of the Nazi regime (1933-38) is much debated. I use hitherto disregarded consumption data and the axiom of revealed preferences to test whether the material standard of living improved. I find that the food consumption bundle realized in 1935-36 must have been inferior to that of 1927-28, despite GDP per capita being much higher. Even in 1937-38 consumers were probably worse off compared to 1927-28. I conclude that increasing consumption constraints forced German consumers to diet and thus to a material standard of living that was much more frugal than national income figures suggest.

Supplier networks in the German aircraft industry during World War II and their long-term effects on West Germany’s automobile industry during the ‘Wirtschaftswunder’

Reconstructing the complex supplier network of the famous JU 88 air armament program, I show that outsourcing activities increased considerably in wartime Germany. The resulting inter-firm division of labor did not lead only to a quite effective protection of the German aircraft production against Allied air raids but also contributed to enormous labor productivity growth in most stages of the production process. Even though aircraft production was prohibited in post-war Germany, this supplier network survived and became the backbone of the most spectacular symbol of West Germany’s economic rebirth: the automobile industry.

Presentation at Ritsumeikan University (18. Dec. 2014, in German):

The dark side of the German armament miracle: The rationing of consumption goods by the ministry of economics during the Second World War

This presentation was based on new archival records I found in Moscow and in the Generallandesarchiv in Karlsruhe. It is part of a much larger project about the history of the German ministry of economics in the 20th century, led by Albrecht Ritschl and Werner Abelshauser. I show that the German economy lacked the capacity to produce both weapons and civilian goods in sufficient quantity and quality. The resulting shortage forced the ministry of economics to implement strict rationing. However, only through the exploitation of the occupied territories, it was possible to cover this failure for a time.

I had the honor and opportunity to discuss my findings and methods with many important Japanese economic historians, among them

Prof. Dr. Ikuo Mitsuishi, Shiga University,
Prof. Dr. Kazuhiko Yago, Waseda University,
Prof. Dr. Kohei Kato, Senshu University,
Prof. Dr. Satoshi Baba, University of Tokyo,
Prof. Dr. Tetsuji Okazaki, University of Tokyo,
Prof. Dr. Yuji Nishimuta, Kyoto University,
Prof. Dr. Hisashi Watanabe, Kyoto University,
Prof. Toshiaki Yamai Ph.D., Ritsumeikan University.
From these discussions, I learned a lot. We also agreed on intensifying our cooperation. Prof. Nishimuta, just to give an example, plans to present his research on the automobil manufacturer Opel at the university of Mannheim. Prof. Okazaki and I are both members of the editorial board of the newly founded Springer’s Studies in Economic History. At our meeting in Tokyo, we especially discussed future contributions to this book series. One book proposal offered by Jari Eloranta covers the “Economic History of warfare”. Prof. Yago will publish his “History of the IMF” as the second volume of the Studies in Economic History.