

博士論文の要旨

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博士論文題名

Studies on International Migration Theories: Macroeconomic Policies and Remittances

(国際労働移動理論の研究:マクロ経済政策と送金)

要旨

This thesis performs the theoretical analyses of international migration of labour. It reveals how the welfare of labour receiving and sending countries is affected by international migration through macroeconomic policies and remittances. It also derives policies that make the economy as a system optimal by utilising the optimisation method in engineering.

The first three chapters conduct analyses, observing the economic system macroscopically. I find how the welfare of labour receiving and sending countries is related to macroeconomic policies by solving the optimisation problem with constraints and derive policies that help make the system optimal.

Using a small open economic model with dual labour markets, where one is non-competitive and another is competitive, Chapter 1 investigates how changes in foreign workers' accessibility to labour markets affect the welfare of the economy. I assume that only some of the foreign workers who have already immigrated can enter the labour markets owing to impediments to foreign worker participation in the labour markets. I examine two cases, one in which the union and the policy authority behave non-cooperatively, and another in which they behave cooperatively.

I show that the economy's welfare, i.e., the sum of the union's and policy authority's utilities increases in both cases as unskilled foreign workers have more access to the secondary labour market. However, the economy's welfare does not always increase as skilled foreign workers have more access to the primary labour market. In particular, under cooperation, the economy's welfare might decrease with the increasing accessibility of skilled foreign workers to the primary labour market.

The results suggest that the economy's welfare increases with the elimination of discrimination against unskilled foreign workers and encouragement of their participation in the secondary labour market. Additionally, we have to implement policies that compensate the decreases in the union's utility caused by increases in union membership of skilled foreign workers if we are to encourage their employment.

Chapter 2 attempts to model the labour market in a more realistic manner by assuming that employment and wages are determined according to the efficiency wage hypothesis. The chapter assumes the case of inter-government cooperation

between independent policy authorities as well as the case of non-cooperation between them.

In this manner, I investigate which of the two regimes, non-cooperation between governments or inter-government cooperation, is advantageous under the mobility of labour.

I reveal that not only the utility of the policy authority but also that of the workers is higher under inter-government cooperation than under non-cooperation, provided that migration flows are sufficiently sensitive to changes in real-consumption wage differentials between countries.

The results suggest that inter-government cooperation is compatible with open economies that are characterised by migration and efficiency wages.

Chapter 3 investigates which of the two regimes—inter-government monetary cooperation between two independent monetary authorities or centralisation of monetary policies by a single monetary authority under a monetary union—is advantageous. I assume two cases; i.e., one where a two-country economy is not subject to shocks and another where it is subject to supply or demand shocks.

I show that centralisation of monetary policies under a monetary union tends to bring about higher utility for the monetary authority if the two-country economy is subject to shocks and the utility of workers does not differ across regimes.

The results suggest that, in actual economies, which are interdependent on account of labour migration and are liable to be affected by shocks, centralisation of the monetary policies under a monetary union appears to be preferable to inter-government monetary cooperation between the two independent monetary authorities.

We draw conclusions from these analyses that to improve the welfare of labour receiving and sending countries and make them more optimal as an economic system, immigrated workers should have higher accessibility to the labour market, international migration should be facilitated, and the higher degree of policy cooperation should be attained.

The second three chapters conduct analyses, observing the economic system microscopically. I find how the welfare of the labour sending country is related to remittances by solving the optimisation problem with constraints. I also consider how the country receiving remittances can make it more optimal as an economic system when family ties in such a country are strong due to altruism.

One of the main reasons to migrate to and work in a foreign country is to send money to family members left behind in the migrants' home countries. Chapter 4 deals with the problem of how to increase migrants' remittances, given the amount of fees, in other words, without affecting the interests of agents involved. To solve this problem, I assume that the migrant and his family members in the home country have an altruistic relationship.

Contrary to intuition, I derive that remittances become larger by *increasing* the receiving fee whereas they become larger by reducing the sending fee. I also derive that, by transferring the sending fee from the migrant to the household, remittances become larger than those without such transfer.

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To realise such transfer, I propose that the home country's government collects the sending fee from the household as taxes, and pays it to the migrant as a subsidy.

Chapter 5 clarifies not only the effects of altruism on the amount of remittances, but also the effects of altruism on the disposition of remittances.

I find that the migrant sends a larger amount of remittances when he feels more altruistic toward his family in the home country, while the migrant may send nothing if he feels less altruistic. I also find that the family members in the home country are likely to consume rather than invest remittances if they are highly altruistic toward the migrant.

The results partially explain why countries receiving large remittances do not necessarily make large investments, and suggest that altruism among family members does not automatically bring about a country's development and growth through remittances.

Chapter 6 treats the migration decision as a solution of the utility maximisation problem and investigates the effects of altruism on migration decisions made by the potential migrant as well as the effects of altruism on remittances made after migration. In doing so, I clarify how altruism affects remittances that the family in the home country will receive; i.e. expected remittances.

I find that if migration does not incur any costs, the potential migrant always migrates, and altruism increases expected remittances monotonically. However, if migration incurs costs, the potential migrant does not necessarily migrate, and the potential migrant with a higher degree of altruism is less likely to migrate. As a result, given the migration costs, it is possible that altruism decreases expected remittances.

The results suggest that altruism does not increase expected remittances monotonically.

We draw the following conclusions from these analyses that remittances and migration decisions are strongly related to altruism and that it has both positive and negative effects on remittances and migration decisions. Accordingly, policies to alleviate such negative effects should be implemented to make the labour sending country more optimal as an economic system.

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この論文は、労働者が流入・流出する経済を1つのシステムととらえ、マクロ経済政策及び送金のシステムとの関わりを理論的に明らかにし、システムを最適化するための方策を工学で用いられる手法を使って導出した。

前半の3つの章は、システムを巨視的に捉えて分析を行った。マクロ経済政策が労働の受け入れ国・送り出し国の厚生とどう関わっているかを明らかにし、システムを最適化するためのマクロ経済政策を制約条件付き最大化問題から導出した。

第1章は、労働市場が熟練労働市場と不熟練労働市場からなると仮定し、外国人労働者を労働市場へ参入しやすくすることによって、受け入れ国の厚生が大きくなるかどうかを、政府と労働組合が協調的な場合、政府と労働組合が非協調的な場合、それぞれについて調べた。そして不熟練外国人労働者が不熟練労働市場に参入しやすくなるとどちらの場合でも受け入れ国の厚生が高くなるが、熟練外国人労働者が熟練労働市場へ参入しやすくなると協調的な場合、厚生が低くなる可能性があることがわかった。

第2章は、労働市場の定式化を現実に近づけ、賃金率や雇用量の決定が効率賃金仮説にしたがって行われると仮定した。また労働者が自国と外国の賃金の差によって移動すると仮定した。これらの仮定のもとで、異なった国の政策当局が協調的に政策を実施するのが望ましいのか、あるいは非協調的に政策を実施するのが望ましいのかを検討した。そして労働移動が賃金の差に敏感に反応するならば、国際間で政策協調を行ったほうが、政策当局と労働者の効用が高くなることを明らかにした。

第3章は、各国が需要ショックや供給ショックを受ける2国のあいだを労働者が移動する場合に、独立した各国の政策当局が金融政策を協調的に実施するのが望ましいのか、あるいは金融政策を中央集権化して実施するのが望ましいのかを検討した。そしてこのような経済では金融政策の中央集権化が望ましいという結果を得た。

以上の分析から、労働の受け入れ国・送り出し国がシステムとしての最適性を高めるためには、既に受け入れた外国人労働者の積極的な活用、国際労働移動の促進、より高度な政策協調の実施が望ましいことがわかった。

後半の3つの章は、システムを微視的に捉えて分析を

行った。送金が労働の送り出し国の厚生とどう関わっているかを制約条件付き最大化問題から明らかにし、利他主義のもとでの送金が行われる場合にシステムを最適化するための方策を検討した。

移民による送金は移民の家族や出身国が資金を獲得する有力な手段で、労働の送り出し国の厚生を高めるのに役立つと考えられているが、送るための送り手数料と受け取るための受け取り手数料が必要である。第4章は、送り手数料と受け取り手数料を変更せずに送金額を大きくする方法を検討した。そして手数料を変更しなくても、送金を受け取る家族が受け取り手数料と送り手数料の両方を負担すると、送金額が大きくなることがわかった。

第5章は、移民と移民の家族が互いに利他的である場合に、利他主義の程度が送金額と送金の支出目的に及ぼす影響を検討した。そして移民が家族にたいして利他的であるほど送金額が大きいが、家族が移民にたいして利他的であるほど送金されたお金が消費目的に支出されやすいという結果を得た。

第6章は、移民として外国へ働きに出る可能性のある家族とその他の家族のあいだでの利他主義が、移民として外国へ働きに出た場合の家族への送金額に及ぼす影響と、家族の誰かが移民として外国へ働きに出る誘因に及ぼす影響を調べた。これらに基づいて送金額の期待値、すなわち送金額と移民確率の積が利他主義の程度とともに単調に増加するかどうかを調べた。そして外国へ働きに出る可能性のある家族とその他の家族のあいだで利他主義の程度が高くても送金額の期待値が大きいは限らないことを明らかにした。

以上の分析によれば、利他主義のもとでの送金は労働の送り出し国の厚生を高めるとは限らない。なぜなら送金されたお金が消費に支出されたり労働移動の可能性が低くなるかもしれないからである。労働の送り出し国がシステムとしての最適性を高めるためには、政策当局がこのような事態を是正する政策を立案し実施しなければならない。