

KIPF/FES 국제심포지엄 발표논문집

글로벌화, 통일 그리고 조세정책

Globalization, Unification and Tax Policy

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序 言

1990년대 들어서 북한은 社會主義圈의 붕괴로 인하여 對外經濟 基盤을 喪失하였고 계속된 자연재해로 인하여 심각한 경제위기에 직면하고 있다. 최근 북한의 일부지역에서는 餓死者가 속출하는 등 식량난이 심각해짐에 따라 北韓體制의 崩壞는 시간문제라고 보는 시각도 있다. 따라서 南北韓의 體制統合은 이제 가까운 시일내에 우리에게 닥쳐올 수도 있으며 이 때 정치·경제·사회의 각 분야에서 우리에게 커다란 과제로 대두될 것이다.

이러한 체제통합과정에서의 정치·경제·사회분야의 제문제를 해결하기 위해서는 租稅政策이 담당하여야 할 역할이 클 것으로 예상된다. 우선 각 분야의 문제점들을 해결하기 위하여 소요되는 統一費用의 대부분을 增稅를 통하여 조달하여야 하며, 또 남한과 북한의 경제가 제대로 통합되고 활성화되기 위하여 租稅政策分野에서 많은 지원 수단을 제공해야 하기 때문이다.

한편 1990년대 들어서 우리나라 경제환경의 변화 중에서 가장 중요한 것으로서 경제의 글로벌화를 들 수 있다. 최근의 세계 주요국가들의 金融市場의 변화가 우리나라 금융시장에 미치는 영향을 보더라도 우리나라 경제정책 수립시 경제의 글로벌화가 가장 먼저 고려하여야 할 요소가 되었다는 것을 부인할 수 없다. 금융정책뿐만 아니라 국제적으로 資本과 人力의 移動이 자유로워짐에 따라 개별국가들의 조세정책도 국내적인 요인에 의해서만 결정될 수는 없는 상황이 되었다. 해외자본유치와 국내자본의 해외유출을 방지하기 위하여 각국의 자본소득관련 세제가 경쟁적으로 인하되어가는 추세이며 또 OECD를 중심으로 이러한 지나친 稅制競爭(tax competition)의 대안으로서 국제적으로 稅制調和(tax harmonization)를 이루려는 노력이 경주되고 있다.

우리나라의 통일이 바로 이러한 글로벌화된 경제환경 속에서 이루어지게 될 것이라

는 점이 統一과 관련된 경제정책수립을 조금은 더 어렵게 만든다고 보여진다. 이에 대응하기 위하여 본 연구원에서는 『글로벌化, 統一 그리고 租稅政策』이라는 주제로 저명한 여러 전문가들을 모시고 국제심포지엄을 개최하였다.

이 책자는 지난 11월 4일과 5일 양일간 개최된 심포지엄에서 발표된 論文과 討論 內容을 수록한 것이다. 본 연구원에서 개최한 심포지엄이 성공적으로 마무리될 수 있도록 적극 지원해 주신 재정경제원의 南宮 鑣 세계실장, Claus Vollers 주한 독일대사 그리고 Peter Mayer 프리드리히 에버트 재단 한국사무소 소장을 비롯한 학계와 언론계의 여러 참석자들에게 진심으로 감사를 드린다. 또한 바쁘신 중에도 훌륭한 논문을 집필하고 발표해 주신 필자 여러분과 발표된 논문에 대하여 논평을 해 주신 분들 그리고 綜合討論에 참여해 주신 분들께 감사를 드린다. 그리고 책자의 편집과 출판을 위해 수고해 준 본 연구원의 金裕燦 博士, 원고와 자료의 정리를 맡아준 康美貞 연구원과 崔祉香 연구조원, 영문원고의 교정을 맡아 준 安善載 연구원 및 심포지엄을 개최하기까지 많은 노력을 기울여 준 崔秉俊 企劃課長과 出版課 직원들의 노고에 사의를 표한다.

끝으로 이 논문집의 내용은 저자들의 개인적인 견해이며 본 연구원의 공식견해를 나타내는 것은 아님을 밝혀 둔다.

1997年 12月

韓國租稅研究院

院長 金 仲 秀

심포지엄의 概要

1997年 11月 4日

09:00~09:30 登 錄

09:30~10:00 開會辭

- 開會辭：金仲秀(韓國租稅研究院 院長)
- 歡迎辭：Claus Vollers(駐韓 獨逸大使)
Peter Mayer(FES 韓國事務所 所長)

10:00~10:30 基調演說：南宮 鏞(財政經濟院 稅制室長)

10:30~12:00 〈第 1 主題〉：“統一費用調達方案으로서 獨逸의 財政政策”

- 司會者：趙潤齊(西江大學校 教授)
- 發表者：Klaus Funken(獨逸國會 諮問委員)
- 討論者：柳一鎬(韓國租稅研究院 副院長)
高日東(韓國開發研究院 研究委員)

12:00~13:30 中 食

13:30~15:00 〈第 2 主題〉：“韓國의 統一費用 調達方案”

- 司會者：朴泰圭(延世大學校 教授)
- 發表者：崔濬旭(韓國租稅研究院 研究委員)
- 討論者：孫光洛(嶺南大學校 教授)
Diana Brand(뮌헨 Ifo研究所 研究委員)

15:00~15:30 中間 休息

15:30~17:00 〈第3主題〉：“統一된 環境에서 獨逸의 投資促進을 위한 租稅政策”

- 司會者：朴泰圭(延世大學校 教授)
- 發表者：Georg Ziemes(민헌 産業大學校 教授)
- 討論者：安鍾錫(韓國租稅研究院 研究委員)
李晟鳳(對外經濟政策研究院 研究委員)

1997年 11月 5日

09:30~11:00 〈第4主題〉：“글로벌화된 韓國에서의 統一과 租稅政策”

- 司會者：金完淳(高麗大學校 教授)
- 發表者：金裕燦(韓國租稅研究院 研究委員)
- 討論者：朴 進(韓國開發研究院 研究委員)
Peter Mayer(FES 韓國事務所 所長)

11:00~11:10 中間休息

11:10~12:40 綜合討論

- 司會者：金仲秀(韓國租稅研究院 院長)
- 討論者：金廷洙(中央日報 專門委員)
吳然天(서울大學校 教授)
尹建永(延世大學校 教授)
李鎮淳(崇實大學校 教授)
Klaus Funken(獨逸國會 諮問委員)
Georg Ziemes(민헌 産業大學校 教授)

12:40~12:50 閉會辭：金仲秀(韓國租稅研究院 院長)

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開 會 辭

Claus Vollers 駐韓 獨逸大使, Peter Mayer 프리드리히 에버트(Friedrich Ebert)재단 韓國事務所所長, 南宮 鏞 財政經濟院 稅制室長, 그리고 내외 귀빈 여러분.

韓國租稅研究院은 프리드리히 에버트 재단과 공동으로 「Globalization, Unification and Tax Policy」란 주제로 국제심포지엄을 개최하게 되었습니다. 우선 이 심포지엄에 참여하기 위하여 먼길을 오신 독일측 관계자 여러분들을 환영합니다. 여러분들과 한국측 참여자들간의 진지하고 전문적인 토론은 우리나라의 統一政策 樹立에 큰 기여를 하게 될 것으로 기대합니다.

현재 韓國經濟뿐만 아니라 세계의 모든 경제에 통용되는 중요한 특징은 바로 Globalization 추세라 할 수 있습니다. 아마도 20세기 말부터 진행되어온 이 추세가 다가오는 21세기의 경제를 규정하는 대표적 개념이 될 것이라는 데는 이견이 없을 것으로 생각합니다. 실제로 한국정부는 世界化戰略을 국정운영의 중심개념으로 삼아 경제의 글로벌화를 강력히 추진하여 오고 있습니다. 1996년말 한국의 OECD가입도 정부의 이러한 전략의 일환으로 추진된 결과로 보아야 할 것입니다. 글로벌화 추세는 우리에게 피할 수 없는 선택일 뿐만 아니라 이러한 추세에 적극적이고 긍정적 자세로 대처하는 것이 國益에 도움이 된다는 국민적 공감대가 폭 넓게 형성되고 있다고 생각하고 있습니다. 경제의 글로벌화를 추진하는 최선의 방법을 찾는 것은 이제 정책담당자와 정책연구자의 몫으로 남게 되었습니다.

한편, 우리 경제가 필히 해결하여야 할 또 하나의 과제가 統一問題입니다. 언제 어떠한 형태로 統一이 이루어질 것인지를 예견하는 것은 어려운 일입니다만 머지않은 장래에 통일이 이루어질 것이라는 데에는 의심의 여지가 없습니다. 우리가 해야 할 일

은 이러한 통일의 가능성에 대비하는 것입니다. 통일을 전후로 하여 발생할 經濟現象들, 그리고 대비하여야 할 과제들을 철저히 분석하는 것의 중요성은 제 아무리 강조하여도 지나침이 없다고 생각합니다. 분단된 조국을 統一한 국가가 바로 獨逸입니다. 이 소중한 경험으로부터 교훈을 얻고자 하는 것이 본 국제심포지엄의 목적이라 할 수 있겠습니다.

이번 국제심포지엄에서 글로벌化 趨勢와 統一問題 논의의 중심개념을 租稅와 財政으로 선택한 것은 매우 흥미로운 일이라 생각합니다. 국경이 사라져가는 글로벌경제 하에서 각 경제부문은 자유화가 진전되는 추세에 있습니다. 金融이 自由化되고 經濟規制가 撤廢되고 있습니다. 이러한 경제 여건에서 정부의 정책수단으로는 정부 고유 기능이라 할 수 있는 조세와 재정만이 남게 되어 이들의 중요성이 부각되고 있습니다. 또한 통일을 준비하는 데에도 租稅와 財政政策이 중요한 역할을 수행하여야 합니다. 통일비용을 어떻게 조달하는가의 문제도 조세와 재정정책수단에 대한 적절한 분석이 없이는 실효성 있는 대안을 제시할 수 없을 것입니다.

더욱 흥미로운 사실은 북한에는 조세의 개념이 이미 사라졌다는 것입니다. 실질적으로 조세의 기능을 대신하는 수단은 정부의 운영을 위해 활용되고 있지만 우리 경제에서와 같은 조세제도는 존재하지 않는 상황입니다. 이러한 맥락에서 볼 때, 통일에 대비하여 북한에 도입하여 적용할 租稅制度를 연구한다는 것 자체가 統一問題를 연구하는 학자들에게는 큰 도전이라 아니할 수 없는 것입니다. 시장경제가 정착되어 가는 과정에서 租稅와 財政의 역할은 지대할 것이기에 이에 대한 세밀한 준비작업은 실로 막대한 중요성을 지닌다고 할 수 있습니다.

지금까지 우리나라에서 統一問題에 대한 논의는 진지하게 다각도로 진행되어 왔습니다. 그러나 조세와 재정분야에 대한 전문적 토의는 이제 막 시작하는 단계에 있다고 볼 수 있습니다. 불과 하루 반의 오늘 국제 심포지엄에서 이 모든 중요한 문제를 전부 다룰 수는 없겠지만, 시작이 반이라는 우리나라의 속담이 있듯이 본 심포지엄이 租稅와 財政分野의 統一政策을 수립하는 초석을 세우는 계기가 되기를 기대합니다.

다시 한번, 본 심포지엄 참석을 위해 먼 길을 찾아 와 주신 독일 학자들, 그리고 바

쁘신 일정에도 불구하고 본 심포지엄에 참여해 주신 내외 귀빈 여러분들께 감사의 말씀을 드리면서 이것으로 開會辭에 갈음하고자 합니다.

1997年 11月

韓國租稅研究院

院長 金 仲 秀

Opening Address

President Dr. Kim, Dr. Mayer, Deputy Minister Namkoong, Ladies and Gentlemen,

I am very honored to be invited here to help in opening this important seminar, which certainly will add something new to our old discussion about the chances of reunification and problems of reunification.

Obviously, taxation is something which all citizens don't like and which always presents a problem between principles and the necessity of the state. In Germany, we have a very practical problem right now in taxation because there is a political discussion about the reform of taxation. Everybody's in agreement that it should be reformed, only the question of how it should be reformed, is the decisive question where we have not found an agreement yet. Also, the state of affairs reflects the general unease of fiscal decision-makers in agreeing on what the "right" concept of such a decision is. I think it is no exaggeration to point out that these discussions are as old as economics as an academic subject, reflecting ideology to some degree as opposed to pragmatism.

Looking back at the early stages of our unification process, you will notice that one of the most controversial issues has been the introduction of the West German fiscal system into East Germany, which has led to some of the most emotional outbursts in public. It was evident that conflicting objectives would dominate discussions in the years ahead. The principle of competitiveness in the ongoing process of globalization, conflicted with the ever-increas-

ing burdens on the individual, necessitated by the need of government to procure funds for the maintenance of a social security based on the principle of the "social state" which is solidly embedded in the German Constitution. In other words, there was a need to redefine the border between individual freedom, including the freedom to dispose, freely and to a maximum degree possible, of gains and income realized of his or her economic activities, and the need for the public to raise sufficient funds to cope with the ever-increasing task of providing for social benefits.

Not surprisingly, the decision-making was further complicated by the need to speed up national unity, including the need to reverse the trend of a collapsing industrial production in old East Germany on the basis of a free market economy, and to cope with the enormous costs of achieving monetary and social union in conformity with the legal framework on which this process was based. The result was the ongoing discussion, an end to which is not yet in sight.

It is well known that there are limits for any government's natural tendency, an innate craving, to test out the limits of endurance of a national economy. When it comes to fundraising through taxation, individuals and corporations alike react most sensitively to excessive burdens and when permitted, retention falls short of economic needs, and tax evasion through legal and even illegal practices are the ensuing immediate reaction, often signaling a spiraling down into a recessive trend reducing public income even further rather than strengthening it. In those heated debates the focal point has usually been the question of what taxation has to avoid rather than a concentration on the prime objectives of raising taxes, which in essence can be described as a kind of entrance fee for interaction within a complex society. All too often, taxing has been seen merely as an instrument of political steer-

ing, such as achieving redistribution or pursuing traditional patterns of industrial policies creating incentives to invest, subsidizing housing, regional growth, families, and regulation of energy consumption, to quote only a few examples.

Globalization, by contrast is a relatively new challenge. The need to kickstart the economy in East Germany must take into consideration the implications of global competition. In other words, to avoid the danger of suffocating the emerging small and medium sized businesses, primarily but not only in the eastern part of reunited Germany, through over-taxation is at least as essential as the need to level standards of living in all parts of reunited Germany through traditional patterns of redistribution.

I hope that this conference will contribute to clear our minds in order to find ways out of the quagmire created by contradictory and conflicting objectives of our times. I'm sure that our problems today are, if not the problems of Korea today then certainly, the problems of tomorrow. The combination of taxation issues and a need for the integration of two different economies is great, and the difficulties are great as well. So I hope this conference will generate new ideas and will have great results which would be of advantage to both our societies. Thank you very much and thank you, the organizers. I think this is a very good idea and I'm sure the result will be as good as that.

Thank you very much.

Dr. Claus Vollers,

German Ambassador to the Republic of Korea

Opening Address

Ladies and Gentlemen,

It is with great pleasure that I welcome you this morning to this conference. A special welcome goes to our international visitors who will be in Korea for just a few days. And naturally we feel honoured to have such distinguished persons as the Deputy Minister for Finance and the German Ambassador participating in the opening ceremony.

The Friedrich-Ebert-Stiftung is happy to be associated with the Korean Institute of Public Finance (KIPF) in hosting this conference. The Korean Institute of Public Finance, the former Tax Institute, is well known and carries a high reputation. We therefore look forward to this joint endeavour and hope that we can enjoy listening to excellent papers and subsequent discussions.

It is quite natural for Korean and German organizations to collaborate in areas concerning unification. While we know that many of our German experiences are quite unique and cannot and sometimes should not be transferred to other countries, we appreciate the Korean approach to study the details of the unification experience of Germany. This can help to devise strategies, to develop options to choose from once the challenge is there. It was certainly one of the problems of our unification that we were quite unprepared. This can and will be different for Korea. While processes of unification are presumably difficult to steer and to control, it is certainly advantageous if policy-makers have concrete ideas about the options, the challenges, and the experiences of other countries. Then the likelihood of making good decisions

is much higher.

On behalf of the Foundation and on my own behalf, I welcome you and wish us all fruitful deliberations.

Thank you very much.

Dr. Peter Mayer

Representative of the FES-Korea Office

基調演說

尊敬하는 내외귀빈 여러분!

먼저 이 자리에 참석하여 주신 데 대하여 진심으로 感謝드리며, 뜻깊은 자리를 마련한 韓國租稅研究院과 獨逸 프리드리히 에버트 財團에도 깊은 감사의 말씀을 드립니다.

본인은 『글로벌화, 統一 그리고 租稅政策』을 主題로 한 국제심포지엄에 참석하신 양국의 전문가 여러분을 모시고 「글로벌화와 統一時代의 租稅政策 方向과 課題」에 대하여 말씀드리게 된 것을 매우 영광스럽게 생각합니다.

『글로벌화, 통일 그리고 조세정책』을 주제로 한 이번 심포지엄에서는 독일의 통일비용조달을 위한 재정정책, 한국의 통일비용 조달방안, 그리고 統一 以後의 租稅政策方向에 대하여 논의되는 것으로 알고 있습니다. 이번 심포지엄이 성공적으로 진행되어 급변하는 국제경제 환경하에서 통일을 맞이하게 될 한국의 租稅政策方向 정립에 많은 도움이 되기를 기대합니다.

지난 몇 년간에 걸쳐 한국은 金融實名制와 不動產實名制의 실시, WTO體制의 出帆과 OECD 가입 등의 경제여건 변화를 적극적으로 수용하여 개방화·국제화 시대에 걸맞게 지속적인 稅制改革을 추진하여 왔습니다. 그리고 소득종류간·계층간의 세부담 형평을 제고하고, 세부담의 적정화를 통한 誠實納稅 基盤을 조성하면서 納稅節次의 簡素化와 「納稅者權利憲章」의 제정을 통하여 납세자 權益保護에 주력하는 한편, 국제규범에 맞는 稅制를 만들어 나가기 위한 노력도 함께 기울여 왔습니다.

그러나 급속히 변화하는 주변 환경여건은 우리 稅制도 한 걸음 더 나아갈 것을 요구하고 있습니다.

오늘날 세계는 기업활동의 世界化와 情報化의 진전에 따라 국가 상호간의 依存性이 높아지고 지구촌이 하나의 경제권으로 묶어지는 추세에 있습니다. 경제의 세계화

현상으로 재화의 수출, 기업의 해외 프로젝트, 기술도입계약, 외국인력의 고용, 해외에서의 자본조달에 이르기까지 經濟主體의 경제활동과정에 있어 租稅가 많은 영향을 미치게 되었습니다.

또, 국제간의 資本과 勞動 移動의 자유화로 각국의 租稅政策은 다른 나라의 조세정책 결정에 중대한 영향을 미치는 변수로 등장하게 되었습니다.

國際化와 開放化, 情報化의 급속한 진전으로 앞으로의 租稅環境에 큰 영향을 미칠 것으로 예상됨에 따라 이러한 환경변화에 적극적으로 대응해 나가는 한편, 21세기 跳躍을 위한 준비로서 새로운 시각에서의 稅制改革의 추진이 요청되고 있는 상황입니다.

앞으로의 세제개혁은 국제화·개방화·정보화 시대에 걸맞지 않거나 市場經濟의 원활한 운영에 걸림돌이 되는 조세제도를 과감히 개편하여, 복잡한 租稅體系를 簡素化하는 동시에 세부담의 형평도 제고하면서 安定的인 세입기반도 확보해 나가는 방향으로 추진해 나갈 계획으로 있습니다. 그리고 향후의 세제개혁을 추진함에 있어 통일시대를 미리 대비하는 制度的 기반도 아울러 마련해 나갈 예정입니다.

WTO체제의 출범 등 世界經濟의 급속한 統合으로 경쟁과 협력의 지구촌 경제시대가 도래하고 있으며, 과거 수세기를 지배했던 산업화시대 이래 정보화시대가 시작되고 있습니다. 한국도 급속히 세계경제의 중심축에 편입되어 변화하는 세계경제의 흐름이 韓國經濟에도 거의 동시에 반영되고 있습니다.

조세정책도 이러한 시대적 흐름에 맞추어 변화되어가야 한다고 생각합니다. 글로벌시대의 조세정책은 기업의 시장 진입과 퇴출에 租稅가 걸림돌이 되지 않도록 정비하고 資本의 흐름을 촉진할 수 있는 방향으로 제도를 개편하되 개별 경제주체가 급격한 변화의 충격을 흡수하여 오히려 성장할 수 있도록 調整 역할도 수행할 수 있는 방향으로 설정해야 한다고 생각합니다.

한국에게는 이와 같은 글로벌화에 더하여 統一을 準備하는 戰略의 수립이라는 중요한 과제가 부여되고 있습니다.

경제부문에서의 성공적인 통합은 순조로운 정치적, 사회적 통합의 전제가 된다는 점에서 經濟統合戰略의 중요성은 아무리 강조해도 지나치지 않는다고 생각합니다.

통일비용의 조달방안, 통합지역에서의 투자촉진 방안, 통일시대의 조세제도의 개편 방안 등 중요한 과제에 대한 政策을 開發해야 합니다.

북한지역의 사유재산제도와 시장경제제도의 정착단계를 고려하여 조세제도의 통합방안도 마련해 나가야 합니다. 所得課稅, 消費課稅, 財産課稅 中 어느 단계를 우선적으로 정착시켜 나가야 할지에 대해 많은 연구와 논의가 필요하다고 하겠습니다.

국가발전의 성패는 국민들의 環境變化에 대처해 나가는 적응능력에 달려 있다고 봅니다. 환경변화에 적극적이고 능동적으로 대응하는 국가는 발전하고 그렇지 못하는 국가는 發展 對열에서 탈락한 사례를 우리는 역사를 통해 많이 보아 왔습니다. 글로벌화의 진전에 따른 환경변화에 對應해 나가면서 다가오는 통일시대에 미리 대비해 나가지 못한다면 많은 費用을 치러야 할 것으로 생각합니다.

아무쪼록 오늘과 내일에 있을 討論을 통하여 급속하게 변화하는 세계경제 환경과 통일시대에 대응할 수 있는 유용한 방안들이 제시되기를 바랍니다.

感謝합니다.

財政經濟院 稅制室長

南宮 鏞

Session I

Unification Costs and German Fiscal Policy

**Klaus Funken
(German Parliament)**

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I . Introduction

This morning, I am going to talk about Unification Costs and German Fiscal Policy in united Germany, but before I start I would like to thank the organisers for inviting me to Korea - a country which is probably going to face similar problems we are trying to solve in Germany now.

First allow me to take a quick look back on the situation of 1989, the year when our reunification process started and history took a new direction. I will start with some preliminary remarks before I turn to the subject itself.

As you remember, the Berlin wall came down on November 9th, 1989 and within a extremely short period of time communism collapsed in Eastern Germany and Europe. After less than one year the former deeply divided parts of Germany had been reunited. Most of my countrymen in the West followed these events breathless and doubtingly. At least they had been completely surprised by what had happened.

Before 1989 in fact nobody of the political establishment of Western Germany believed that the unification of Germany was part of the political agenda at all. We all knew that the communist part of Germany, the GDR, was struggling hard in order to keep pace with development in West Germany, we knew of the severe indebtedness of the East German government, we knew of the supply bottleneck, the low investment rate, the lag of a modern capital stock.

The experts of universities and economic research institutes told us that the GDR was in deep economic trouble, Nevertheless, compared to other communist countries, the communists in Eastern Germany were running a country which was highly productive and was playing an important role on

〈Table 1〉 Productivity, Income, Investment and Exports

A fifth of the total workforce in Germany live in the new German States. However only a tenth of the Gross Domestic Product (GDP) is created there. The share of the new States relating to Germany's national income was barely 12 percent in 1994, while the share of income from employment was considerably higher (16 percent) than the share from entrepreneurial and property income. In spite of the very poor company profit situation a remarkable level of investment was achieved: 45 percent of total German net investment (Real Gross Fixed Capital formation and changes of inventories minus depreciation) in 1994 was carried out in the new Federal States. Because of the low propensity to invest in the old Federal States this high figure will be maintained, despite declining capital expenditure activities in Eastern Germany this year.

at prices of 1991	Germany (billion DM)	New States (billion DM)	Share New States/Germany (percent)
Gross domestic product (GDP) 1996	3,067	286	9.3
Gross Value Added 1995	1,034	110	10.6
among them			
Processing industry	769	51	6.6
Building and construction	181	48	26.7
National income/1994	2,501	298	11.9
Net income from employment	973	156	16.0
Net income from entrepreneurial and property income	664	23	3.5
Net investment/1994	309	140	45.3
Exports/1995	728	14	1.9

Source: SVR 1996/97

the world market. So, in fact the people in Western Germany did not have the faintest idea of what was to happen next after the wall came down and

communist rule ended so abruptly.

And to be fair, it had not only been the common people, who had no idea. The government, the opposition in parliament, the business and scientific community, the trade unions, etc. – no one had any idea what it meant to reunite a country after forty years of deep division. There had been no preparation for such an event whatsoever, there did not exist a blueprint for the time to come. Therefore the only way to cope with the problems that our country faced after the wall came down was the method by trial and error. By the way, that explains the zick-zack course in German politics you may have observed since unification, especially in taxation and fiscal policies.

In economic terms, Germany was well prepared for the challenges or let me say unification experiments. The economic conditions in the Federal Republic provided an excellent basis. Never have we been in a better position to cope with the economic problems of unification. In 1989 West Germany had been one of the richest countries on the globe. Together with the United States and Japan we had been world trade champions for more than twenty years, our trade surplus had been more than 100 billion German marks, the current-account surplus was more than 4 percent of the Gross Domestic Product. Next to Japan we had been the most important net exporter of capital in the world. Germany was uniquely well placed to absorb the "shock" of unification.

It should be noted that, the globalization of goods, services and capital markets helped us a great deal to overcome our problems. Many experts feared that the higher demand of the East Germans after the conversion of the GDR Mark into West German Mark would lead to inflationary processes.

In a closed economy the fear may have been justified that integrating a whole economy with low productivity and high demand could end in infla-

〈Table 2〉 Structure of Employment by kinds of economic activities

Only 11 percent of over eight million employees in Germany's processing industry works in Eastern Germany. The processing industry in Eastern Germany contributed only 19 percent to the net output of the whole of Eastern Germany, compared to 27 percent in Western Germany.

The East German building and construction industries however concentrate a much larger share to the Gross Value Added than the West German do. Its share was over 16 percent compared to only five in Western Germany.

1995	Germany (million)	New States (million)	Share New States/Germany (percent)
Employees	31.246	5.863	18.8
Industry	8.348	0.962	11.5
Building and Construction	2.783	1.015	36.5
Trade and Traffic Sector	5.667	0.989	17.5
Services	6.280	1.092	17.4
Public Sector	5.424	1.199	22.1

Source: SVR 96/97

tion. There had been inflationary processes in the East but they were mainly caused by adjusting the extremely low administrative prices of daily goods and services to price levels which were comparable with market conditions in the West. In general inflation was not a big problem after 1990. In an open economy like ours the higher demand of the East German people had been met by imports from all over the world, especially from our European neighbours. Besides, the higher demand was an enormous business for West German industries as well. At the beginning of the nineties the growth rate had been substantially higher in West Germany than it had been for a long time.

<Table 3> The True Extent of Unemployment

The true extent of unemployment in the new Federal States is still being underestimated. In only a couple of years the number of jobs fell from around 10 million to a little over 6 million.

No industrial nation was ever exposed to such difficulties in adapting new economic structures.

Thus it is important to realise that the official numbers of unemployment, which are released each month by the Federal Labour Office (Bundesanstalt für Arbeit), echo less than half of the true extent of unemployment in Eastern Germany.

	Germany (million)	New States (million)	Share New States/Germany (percent)
Population 1996	81.662	15.505	19.0
Total workforce/Nov. 1996	34.516	6.295	18.2
Unemployed/December 1996	4.148	1.186	28.6
Unemployed and participants in public labour market programs/ Dec.96	5.510	1.911	34.7
Job Deficit/Dec.1996 =Unemployed and participants in public labour market programs and commuter balance	5.427	2.242	41.3

Source: Bundesanstalt für Arbeit

And with respect to the international capital market the financing of unification had proved to be not a great problem either. Germany accounts for seven percent of the world's Gross National Product. German budget deficit accounts for 5 percent of German GNP. In reality the German budget deficit accounts for only about a third of one percent of the world's demand for

capital. There did not exist a real reason for substantial higher interest rates because of the collapse of communism in Europe. There was of course an impact on the world capital market simply because more global players are competitors on the global market and there are naturally effects in an upward direction on world interest rates. But it would be wrong to exaggerate the extent of that effect.

Thirdly, I would like to emphasise that the German unification took place under unique international circumstances. German unification was welcomed by all our neighbours. The superpowers actively supported the whole process and in fact there was no reservation towards a new nation state with more than 80 million inhabitants in the middle of Europe.

II. The Big Bang approach

In 1991 the German Government had chosen what the OECD called "the Big Bang approach". West Germany simply swallowed up East Germany by extending all its political, social and economic institutions and the West German legal framework upon the former GDR. The total social benefits for which the West German people have worked since the Federal Republic came into existence had been introduced to the new States: the high level of pensions and unemployment benefits, the social assistance, subsidised housing and so forth.

The overnight extension of the West German Mark into the East on July 1st, 1990 had been the decisive impact on the whole unification process. One may remember that the conversion rate was 1 : 1 for wages, pensions and other incomes. The savings of the East German citizens were - up to a certain amount - exchanged at the rate of 1 : 1 as well. For debts and larger

savings the exchange rate was 1 : 2. Considering the extreme low East German productivity of 25% of the West German level, a conversion rate of 1 : 1 stood for nothing else than an effective appreciation of about 400 percent. In reality this conversion rate proved to be the death penalty for the huge majority of East German companies.

1. The Big Bang illusions

By introducing the West German currency overnight East German people expected that the standard of living, wages and pensions would soon catch up with West German levels. Considering the low productivity level of East German industry, expectations like this were extremely dangerous.

Next to the overall conversion rate of 1 : 1.2 between the Eastern Mark and the Western Mark the wage policy proved to be completely wrong. Without a doubt, productivity was improving but wage adjustment to West German levels was running much faster. The result had been much higher labour unit costs than in West Germany. The employers reacted as to be expected in a market economy: they made workers redundant. In fact, the fast

〈Table 4〉 East German labour unit costs

(West Germany = 100)

	1991	1992	1993	1994	1995	1996
Productivity*	31	43.1	51.6	54.3	55.2	56.7
Wage adjustment*	46.8	60.7	67.9	70.4	72.4	73.7
Labour unit costs*	150.7	140.9	131.6	129.8	131.2	129.8

* in relation to West Germany = 100, in current money figures

adjustment policy of the Trade Unions and the Confederation of German Employers' Associations was responsible for the enormous increase of unemployment after unification.

The wage increases made labour intensive investment less profitable, while high wages did not effect capital intensive investment projects in Eastern Germany. Higher wages have had a negative impact on the birth of new and small firms, which are faced with risky investment, relatively high capital costs and therefore uncertain revenues. The result of all of this is quite clear: the demand for labour has been reduced, unemployment rate remained high, the government was challenged in intervening permanently in terms of additional programs and transfers.

〈Table 5〉 East German labour unit costs* in sectors

	1991	1992	1993	1994	1995	1996
Total producing sector	147.3	133.6	118.1	114.3	114.2	110.3
Manufacturing	189.0	162.1	133.3	129.5	132.2	125.5
Trade and transport	136.1	151.6	150.5	147.9	146.6	144.6
Services	160.6	144.2	136.7	134.8	145.8	148.0

* in relation to West German productivity = 100, in current money figures

2. Selling an economy: The Trust Agency

In 1990, politicians expected the East German economy to flourish within a few years after the state-owned companies had been privatised. Severe financial problems had not been expected either. Midway through 1990 the government hoped that the sale of tens of thousands of companies would

wash 600 billion Marks into the cash box of the Federal Minister of Finance. The idea was that this sum should be used to make the East German economy fit for international competition.

〈Table 6〉 Closing Balance of the Trust Agency December 31st, 1994

	1991	1992	1993	1994
Privatised Treuhand-companies and plants	4,683	11,043	13,643	15,102
Commitment to safeguard employment	930,000	1,400,000	1,490,000	1,510,000
Investment commitment in billion DM	114	170	187	211
Restitution of expropriated companies	3,138	4,008	4,269	4,358
Returning of companies to local authorities' ownership	200	319	346	310
Bankruptcies of Treuhand - companies	865	2,249	3,196	3,718
Number of Treuhand-companies at the end of the year	5,811	2,575	951	192

Source: Closing balance of the Trust Agency

The Trust Agency closed down its sales activities on December 31st, 1994. Its closing account was absolutely disappointing. By selling the whole capital assets of the former communist GDR, the Federal Government received total yields of only 37 billion DM. Privatising the industrial companies gained yields of 29 billion DM, while returning companies to local authorities' ownership and the restitution of expropriated owners gained only a total of 7 bil-

lion DM.

Privatisation of former state-owned companies has been anything but a smash hit. The Trust Agency had been subsidised by billions of German Marks in order to promote sales. But it is hard to sell 15,000 companies to national and international investors - companies, it should be noted, whose production machinery and products were mostly out of date.

Everyone knows that to suddenly increase the quantity supplied in the market place leads to excess supply, and excess supply leads to a fall of prices. That is what happened to the German Trust Agency commissioned to sell thousands of companies. Obviously, it is hard to sell products which are out of date. You have to offer discounts. That is what the German Trust Agency had to do as well.

〈Table 7〉 Yields from Privatisation of former GDR Companies

(unit: billion DM)

	1.7.1990 to 31.12.1991	1992	1993	1994	sum total 1990-1994
Yields from privatised companies	11.8	4.2	2.1	11.2	29.3
Yields from Returning companies to local authorities' ownership and Restitution	0.1	0.1	0.1	0.1	0.4
Yields from landed properties	1.9	1.6	1.6	2.2	7.3
Sum total	13.8	5.9	3.8	13.5	37.0

Source: Closing Balance of the Trust Agency

Instead of making revenues of 600 billion Marks as expected, the Trust Agency, the Treuhandanstalt, closed their activities in 1994 with a net loss of 204 billion Marks. The government had to learn that there is quite a difference between privatising a few state-owned companies and selling a whole economy.

The Treuhandanstalt - that is, under the interpretation of the Federal Government - had secured 211 billion DM in investment pledges retainings and created 1.5 million jobs. Reality is unfortunately a little different.

〈Table 8〉 Job development in former Treuhand-companies

(unit: thousand)

Year	privatised Treuhand-companies		Treuhand-companies	
	Employees	difference	Employees	difference
Jan. 90			4,080	
Jul. 90			3,500	-580
Jan. 91			2,937	-563
Apr. 91			2,653	-284
Oct. 91	410		2,000	-653
Apr. 92	560	150	1,235	-765
Oct. 92	885	325	560	-675
Apr. 93	1,047	162	337	-223
Oct. 93	999	-48	213	-124
Apr. 94	989	-10	137	-76
Oct. 94	980	-9	94	-43
Oct. 95	950	-30	18	-76
Jan. 1996	883	-67		
1. 1. 1997*	830	-53		
1. 1. 1998*	816	-14		

* Source: Interview of Ex-Treuhand-companies by IAB and BvS, * estimated

In relation to securing and creating jobs, the results of the Trust Agency are rather poor. In the beginning of 1990, the companies which had been organised under the Treuhand umbrella employed more than 4 million workers. Eight years later the privatised Treuhand companies are providing jobs for approximate 800,000. That is a job reduction of about 80 percent.

To be fair, the deindustrialization of Eastern Germany has its roots in inefficiency and obsolescence of the capital stock inherited from the communist state. But it also has to be said that deindustrialization of Eastern Germany has been made worse by the way in which privatisation had been pursued by the Federal Government.

3. Inheriting a communist state

Looking at the total direct liabilities Germany inherited from the former communist state we find four components:

State debt of the former GDR Government;

Equalisation claims on the "Currency Conversion Equalisation Fund";

Liabilities of the state-owned companies;

Liabilities of housing co-operatives; and

Debts of East German municipalities on buildings.

These liabilities have been brought together into the Special Government Funds relating to German Unification. The state debt (28 billion DM), the debts relating to the asymmetric currency conversion of claims and liabilities of the banks (30 billion DM), the depreciation on liabilities of former Treuhand companies which declared bankruptcy (39 billion DM), have been integrated into the so-called "Debt Processing Fund" (Kreditabwicklungsfonds). At the end of 1994, this fund amounted to 102 billion DM.

At the same time the liabilities of the Treuhandanstalt amounted to 205 billion; that was refinancing the liabilities of the privatised Treuhand companies amounting to 73 billion DM, and the borrowing of money which had to be used to cover the running costs amounting to 129 billion.

Treuhand debts and the Debt Processing Fund have been brought together into the "Redemption Fund for Inherited Liabilities" (Erbblastentilgungsfonds) which has been established in 1995. This fund has taken over the liabilities of GDR housing companies (29 billion DM) and the liabilities of GDR municipalities (8 billion DM) as well. At the end of 1996 the Redemption Fund for Inherited Liabilities amounted to 343.4 billion DM.

In addition to the Redemption Fund for Inherited Liabilities, there is a further fund which has to be mentioned: the so called "German Unity Fund", which was established in 1990 in order to finance the expenses of the new Federal States and the Eastern municipalities. This fund had been refinanced by the Federal Government and the Governments of the West German States. Up to the end of 1994 the German Unity Fund raised credits to the amount of 95 billion DM. In the meantime 11 billion have already been acquitted.

Finally, there is the European Recovery Program which has expanded its liabilities from 7 billion DM in 1989 to 34 billion in 1996. The debt increase was due to the activities the European Recovery Program was pursuing in the New States of Germany.

The Redemption Fund for Inherited Liabilities is financed by a 7.5% surcharge to the income tax that is approximately 27 billion Marks, and by the returns of the German Central Bank (Deutsche Bundesbank) by about 7 billion Marks per year.

To sum up, at the end of 1996, the liabilities relating to unification of both

The bulk of the financial legacy of the former communist state has been merged into a special fund "Redemption Fund for Inherited Liabilities" (Erblassentilgungsfonds) which includes four components(at the end of 1996) :

	(in billion DM)
1. Debts of former GDR government and currency conversion costs :	102.0
2. Debts and liabilities of the Trust Agency	204.6
3. Debts and liabilities of housing co-operatives	28.4
4. Debts of municipalities	8.4
Redemption fund for inherited liabilities (total)	343.4

Source : Federal Government

parts of German States amounted to 454 billion DM. These liabilities were not budgeted in the national budget but in subsidiary budgets, the so-called Special Government Funds relating to German unification. An overwhelming bulk of these debts has to be financed by the Federal Government.

III. Economic transition problems

The Germans would count themselves lucky if they had only to carry the burden of the financial legacy of the former communist GDR. The German unification can be seen as an economic shock which is still rocking the whole country. Unification has created an excess supply of labour and an excess demand for capital to rebuild East Germany, both in enterprises and in public infrastructure. This means the relative factor prices are shifting: labour has become less favourable, capital, more valuable. However, the Government also has to revalue its political priorities and has to react on completely new challenges which unification puts on the agenda.

Germany, its political and economic establishments need some time to live

up to the new situation. At the beginning of the nineties, the Federal Government assumed that reuniting both parts of Germany would be completed within a period of four or five years. It did not foresee any troubles in financing unification. During the 1990 general election campaign, Chancellor Kohl promised there would be no need to increase taxes. Since then the Federal Government has increased taxes seventeen times.

1. Disaster No 1 : job losses

As mentioned before, the Federal Government's policy pursued the "Big Bang approach" with disastrous results, as the former president of the Bundesbank, Karl Otto Poehl, used to comment. In 1989 there had been 9.7 million jobs in East Germany; only three years later the number of jobs went down to 6.3 million. East Germans had to suffer substantial job losses in important sectors of the economy like agriculture, industry, trade, transport and communications, public administration, private households and non-profit organisations. In these sectors more than 4 million jobs have been destroyed. Fortunately, a total of over half a million jobs have been created in the service industry. But these job increases in services are too small to compensate the job losses.

Never before in German history, not even in the Great Depression at the beginning of the Thirties, have the people of Eastern Germany experienced such an economic decline. More than one third of the workforce had been made redundant, the industrial output fell by about 70 per cent, and the Gross National Product (GNP) fell by about 30 percent. In comparison to that, the German unemployment rate during the Great Depression reached its peak at about 25 percent. The decline of industrial output had been 40

percent in 1932.

After this disaster, the government is now arguing that the East German industry was in a much worse state than everyone had assumed in 1989, and the blame for their false estimate of the sales revenues was put entirely on the former communist rule.

〈Table 9〉 Job losses in East Germany 1989-1994

(unit: thousand)

	1989	1994	difference	in percent (%)
Agriculture/Fishing (1)	975	224	-751	-77.0
Manufacturing/Construction/ Mining (2)	4,385	2,164	-2,221	-50.6
Trade, transport, communication(3)	1,512	1,107	-405	-26.8
Services	618	1,178	560	90.6
Government, private household, non-commercial organisation (4)	2,254	1,594	-660	-29.3
Total 1-4	9,126	5,089	-4,037	-44.2
Total sectors	9,744	6,267	-3,477	-35.7

Source: Bundesanstalt für Arbeit

Of course the conversion of the planned economy of the former GDR into a functioning system based on the principles of the social market economy of West Germany was, and remains, a challenge which is unique in history. The manufacturing basis in former communist Germany had been in very bad condition, the infrastructure was even worse, people had to live in pitiful housing conditions. But instead of creating the promised "Economic Miracle", economic growth rates have been rather flat. Until today productivity is still growing faster than economic growth, resulting in a permanent decrease of employment.

〈Table 10〉 Jobless Growth

Year	GDP in billion DM	difference	in %	Employees in million	difference	in %
1989				9.747		
1990				8.820	-927	-9.5
1991	206.0			7.321	-1.499	-17.0
1992	222.1	16.1	7.8	6.387	-934	-12.8
1993	241.8	19.7	8.9	6.208	-179	-2.8
1994	265.7	23.9	9.9	6.303	95	1.5
1995	279.9	14.2	5.3	6.386	83	1.3
1996	285.4	5.5	2.0	6.279	-107	-1.7
1997*	291.1	5.7	2.0	6.150	-129	-2.1
1998*	298.4	7.3	2.5	6.135	-15	-0.2

GNP at 1991 prices, 1997 and 1998 estimated

Most worrying is the fact that economic growth is slowing down dramatically for more than one year. In 1997, and probably next year too, the East German economy will be growing beneath the growth rates of the West German economy.

2. Disaster No 2 : The gap between production and consumption

The companies in Eastern Germany are still not able to meet the domestic demand for goods and services. There is a huge gap between the domestic demand of the people, of the companies and of the Governments in East Germany and the East German gross domestic product. This gap - which we call the production gap - has grown even larger: starting at about 152 billion

DM in 1991, growing to 210 billion DM in 1994. Since 1995 we have not had statistical details and figures of East German domestic demand, so we have had to rely on estimations. We assume that the gap between domestic demand and GDP is still more than 200 billion DM.

〈Table 11〉 The gap between domestic demand and GNP
from 1991 to 1994

(unit: billion DM)

East Germany	1991	1992	1993	1994
Gross National Product	206.0	222.1	235.0	256.7
Domestic demand	358.3	412.0	434.2	467.6
Production gap	-152.3	-189.9	-199.2	-210.9

The production gap, basically filled with West German products and services, thus is still creating and protecting jobs in West Germany. While East German employment fell from 9.7 million in 1989 to 6.3 in 1994 (that is, more than 3.4 million jobs), at the same time, the West German working population grew by one million (27.65 million to 28.65 million). On the other hand, one also has to take into consideration the constricting effects on the West German economy such as tax increases, expenditure decreases, and crowding-out effects on the capital market.

As long as there had been sufficient liquid resources on national and international capital markets and as long as the public hands refinanced transfer payments by tapping the capital markets, positive effects on growth and employment in Western Germany were obvious. At the beginning of the 1990's, the West German states achieved economic growth rates last measured in the 1960's, when people spoke of the "Economic Miracle" in an admiring way. But since the burden of interest shot up and politics was being threat-

ened to be strangled, other ways of financing the unity had to be chosen, such as increasing taxes and cutting expenditures.

3. Keeping the economy running: Financial transfers

The pace of the adjustment process is dependent on investment, on the accumulation of capital, expanding and renewing the capital stock. This accumulation process has been heavily supported by subsidies. Without these financial transfers, the Eastern economy is still bound to collapse. Until now there is no autonomous business cycle. On average, the companies' returns are too meagre to raise the means for investment. The tax revenues and the social security contributions in East Germany are too small to meet the huge demand for financial means.

Analysing the transfer problems of unification there are two fundamental statements to make.

Firstly, the overwhelming part of transfers are financed by the Federal Government and the social security system, that is, the statutory social insurance scheme, mainly pension and employment insurance. The governments of the States and the administrations of the municipalities contribute to a much smaller extent.

The second fundamental statement is that the main bulk of the transfers is spent for consumptive purposes in order to protect the consumption level of the East German people. Only 30 percent of total transfers are spent for investive purposes in order to create jobs, to enhance competitiveness and so forth.

The share of Germany's total expenditure on research and development

(as a percentage of GNP) amounted to less than 2.5 percent. Approximately 5 to 7 percent of Germany's Gross National Product is transferred to the Eastern part of Germany.

〈Table 12〉 Transfers to East Germany 1991-1997

(unit: billion DM)

	1991	1992	1993	1994	1995	1996	1997	Total 91/97
Net transfers	106	115	129	125	140	134	130	879
Federal budget	75	88	114	114	135	133	126	785
German Unity Fund	31	24	15	5	0	0	0	75
European Union	4	5	5	6	7	7	7	41
Pension insurance	0	5	9	12	17	18	16	77
Unemployment insurance	24	25	15	17	16	16	18	131
States/Municipalities	5	5	10	14	10	10	11	65
Gross transfers	139	152	168	168	185	184	178	1,174
Total reflexes	33	37	39	43	45	50	48	291
among them: Federal tax revenues in East Germany	31	35	37	41	43	48	46	277
East German administration fees	2	2	2	2	2	2	2	14

Source: Deutsche Bundesbank

Shifting more than 130 billion DM each year to East Germany, 70 percent of which is being used to safeguard consumer expenditure, is a serious problem. Instead of financing expenditure on Research and Development, innovations and capital expenditure savings are used for consumptive purposes. Of

course, this is a heavy burden for the economic future of the country.

4. Economic incentives and expenses

On the one hand, economic incentives and expenses in the new States have been concentrated on investments improving the infrastructure, such as investments in railways, telecommunications, roads and water ways, energy, environmental protection and transfer of technology.

On the other hand, state-owned loans banks, like the Reconstruction

〈Table 13〉 Economic Incentives and Expenses in Germany's New States

	1991	1992	1993	1994	1995	1996*	Total sum 91/96
Gross Federal expenses for East Germany	75	88	114	114	135	133	659
among them: New financial equalisation	0	0	0	0	35	35	70
Railway investment	8	9	10	15	14	11	67
Road investment	2	4	3	4	4	4	21
Joint Federal Government/ Länder Scheme "Improving the regional economic struc- ture"	3	4	5	4	4	4	24
Local investment	8	3	4	2	9	12	38
Others incentives: credit programs, subsidied inter- ests, tax-based programs and so on	18	19	25	26	22	24	134

* estimated, Source: Federal Government, Deutsche Bundesbank

Loan Corporation (Kreditanstalt für Wiederaufbau) or the German Equalisation Bank (Deutsche Ausgleichsbank), have provided credit programs with special conditions, subsidied interest programs and government grants for small and medium sized companies by a total of more than 130 billion DM. Assistance is provided for all projects that require long-term allocation of funds, such as acquisition of land and buildings, building investments, procurement of machinery and vehicles, plant and office equipment, projects for research and development of new products, acquisition of intangible assets and so forth. These programs are an important component of the investment promotion activities in the new Federal States.

Since July 1st, 1990, the Federal Government has invested more than 58 billion DM in transport infrastructures of the new Länder: 31 billion for railways, 15 billion for trunk roads and 1 billion for waterways. 9,000 kilometres of roads and 5,500 kilometres of tracks have been improved, rebuilt or newly built. In 2002 the Deutsche Bundesbahn, the national railway company, will have invested 70 billion DM in order to bring the rail equipment and facilities in Eastern Germany up to Western standards. By the end of 1996, the German telecommunication company, Deutsche Telekom, had already installed 8 million new telephone accesses in the new States and Berlin. About 98 percent of the East German consumers are connected to a completely new digital overlay network, which uses optical fibre and state of the art digital technology. Up to now, the Deutsche Telekom has invested more than 44 billion DM.

IV. The Financing of German Federal system

As you all know, Germany is a Federal Republic with a political system

that is based on a power-sharing structure. We have three levels of government: the Federal, the States and the local level. On the one hand, our political system is characterised by a distribution of responsibilities between the Federal Government, the States and the local governments and administrations. On the other hand, responsibility creates participation – participation of the States in the legislative process at Federal level through the Bundesrat, the second chamber. This power-sharing arrangement, the checks and balances, is protected in our constitutional laws.

The local authorities deal with all matters that directly concern the local communities: water and energy supply, garbage disposal, sewerage system, social assistance, building permits, registration system and so on.

The States are not mere provinces, but States endowed with their own powers. The States deal with matters like schools, universities, police, administration of justice, public health services, culture, and housing promotion.

The Federal level is involved in social security policies such as pension and unemployment insurance, defence, foreign affairs, transport and communication, monetary system, promotion of business and industry, research and development.

Because of our power-sharing system, public tax revenues do not flow into a joint account but is shared among the Federal, States and local governments. This means that tax revenues have to be distributed according to the size of responsibility of the three levels of government.

Income tax, corporation tax and value-added tax are so-called joint taxes because they are distributed between the Federal government, the State governments and local governments according to specific formulas.

On the other hand, there are taxes which apply only to one level of government. The Federal Government, for example, obtains revenues from mo-

〈Table 14〉 Joint taxes in 1996

(unit: billion DM)

Joint taxes	555.0
1. Wages tax	251.3
2. Assessed income tax	11.6
3. Non-assessed taxes on earnings	13.3
among them: Interest income deduction	12.1
Corporation tax	29.5
Turnover tax (VAT)	200.4
Import turnover tax	36.8
Total taxes	800.0
Joint taxes in % of total tax revenues	69.4

Source: BMF

nopolies, various consumer taxes like mineral oil, tobacco, coffee and spirits duties, insurance tax, and so forth. The State governments receive taxes on motor vehicles, property, inheritance and beer. Even the local level obtains revenues from trade tax, tax on real property, local excise duties and smaller local taxes.

What I would like to emphasise is the fact that the German public finance system is a quite complex matter which reflects a complex political system. It is important to bear in mind that the national parliament is not endowed to decide on tax policy alone. 70 percent of the total tax receipts are joint taxes. The national parliament has to compromise with the second chamber, the Bundesrat, on most of the major taxes. For example, the wages tax and the assessed income tax are shared among the Federal level by 42.5 percent, the State level by 42.5 percent and the local level by 15 percent. The turnover tax is shared between the Federal level by 49.4 percent, the States level

〈Table 15〉 Distribution formula of tax revenues between Federal, States and Municipality level

(unit: percent)

	Federal	States	Municipalities
Wages tax	42.5	42.5	15
Turnover tax	49.4	48.4	2.2
Mineral oil duty	100		
Trade tax		20 o.St./10 n. St*	80 old St./90 new St.
Corporation tax	50	50	
Solidarity surcharge	100		
Tobacco duty	100		
Real property tax			100
Non assessed income tax	50	50	
Motor vehicle tax		100	
Insurance tax	100		
Interest yields tax	42.5	42.5	15
Real property transfer tax		100	
Income tax	42.5	42.5	15

* the Federal Government receives a 25 percent share of the trade tax

by 48.4 percent and the local level by 2.2 percent.

1. Financial equalisation

The financial situation of the individual States vary considerably. This has been the case before unification. This is more so the case after the five new established States in Eastern Germany had been integrated. Immediately after unification, a "German Unity Fund" was set up to provide financial support

for the new States and their municipalities. This fund was fed jointly by the Federal government and the Western States' governments. Most of the funds have been raised by tapping the capital markets. In fact, the "German Unity Fund" was a substitute for the Financial Equalisation System which equalises the natural and economic disadvantages of individual States.

At the beginning of 1995, the "German Unity Fund" was replaced by the nation-wide financial equalisation arrangement among all Federal States. This multilevel financial equalisation is achieved by allocating the states' share of revenues from the turnover tax among the individual states according to a differentiated formula. The economically strong States have to make equalisation payments to economically weak States.

In addition to the horizontal equalisation among the States, we find the so-called vertical financial equalisation which takes place between the States and the municipalities. Tax revenues of the municipalities are dependent on their economic structure, their social problems like unemployment, their ecological deficits and so on. The aim of vertical equalisation is to reduce the disparity in each State between municipalities with high and those with low tax revenues. Finally, the Federal government provides government grants (Bundesergänzungszuweisungen) to the economically weaker States.

The following chart shows the initial total taxation and the total taxation after equalisation in Eastern and Western Germany in 1996. The initial or original tax income in Eastern Germany amounted to 65.8 billion DM. That is, 8.2 percent of the overall tax income of Germany. In West Germany, 734.2 billion DM was raised. After equalisation, the East German governments and local administrations disposed of 84.0 billion DM, while West German States and municipalities disposed of 338.2 billion DM. Out of the total tax income of 800 billion, the Federal government received 338.4 billion DM, and 39.0

〈Table 16〉 Initial tax revenues and tax revenues after financial equalisation in Germany in 1996

(unit: billion DM)

	East Germany	West Germany	Total tax revenues	Share East/Total (%)
Initial tax revenues	65.8	734.2	800.0	8.2
Tax revenues of the States and the municipalities after financial equalisation	84.0	338.2	422.2	19.9
among them				
States	76.8	251.4	328.2	23.4
Municipalities	7.2	86.8	94.0	7.7
Difference between initial tax revenues and tax revenues after equalisation	18.2	-396.0	-377.8	
Taxes of the Federal government			338.4	
European Union			39.4	
Total tax revenues			377.8	

billion went to the cash box of the European Union.

To sum up, West German tax payers are responsible for financing the budget of their States, for the total Federal budget, for the payments to Brussels and for equalisation among the Western and Eastern States to the amount of 18 billion DM.

2. Taxation

Due to the excellent economic development at the beginning of the nineties, tax revenues increased sharply. In 1991 the German authorities received

661.9 billion DM, four years later the receipts amounted to 786.2 billion DM. That is an increase of nearly 19 percent. In 1993 the German economy slowed down and the unification boom came to an end. The revenue increase flattened out as well. In 1996 an economic recovery started but now the German authorities are facing a new phenomenon. Even though the economic figures improved, there was no increase in tax revenue. On the contrary, tax revenues fell.

〈Table 17〉 Total tax revenues of the Federal Republic of Germany in 1997
(estimated)

Kinds of taxes	in billion DM	in %
Wages tax	252	31
Turnover tax	243	30
Mineral oil duty	66	8
Trade tax	49	6
Corporation tax	33	4
Solidarity surcharge	27	3
Tobacco duty	21	3
Real property tax	15	2
Non assessed income tax	15	2
Motor vehicle tax	15	2
Insurance tax	15	2
Interest yields tax	12	1
Real property transfer tax	11	1
Income tax	11	1
Other taxes	28	3
Total tax revenues	813	100

Source: BMF

Before continuing with more details, I would like to present the most important kind of tax revenues. 69 percent of the total tax revenues are allotted to only three kinds of taxes, wages tax, turnover tax and mineral oil duty.

One reason for the sharp decline in tax revenues in 1996 is a change relating to the children's allowance arrangement. From 1996 onwards, a children's allowance is deducted from income and wages tax payments.

But there is a second more serious reason, the erosion of the taxation base. Companies, business people, and wealthier people have been using tax evasion opportunities that countries inside and outside the European Union are offering. In the meantime, this is one of the biggest problems the German Minister of Finance is facing. Never has it happened that the economy is improving but the tax revenues are not catching up.

〈Table 18〉 Tax revenues in Germany and its distribution between
Federal Government, States and Municipalities 1990–1996

(unit: billion DM)

	1991	1992	1993	1994	1995	1996*
Federal government	317.8	352.9	356.0	378.9	366.1	338.4
States (West)	208.7	227.5	232.9	237.1	240.0	251.4
Municipalities (West)	81.9	88.8	90.2	89.6	86.4	86.8
Total (West)	290.6	316.3	323.1	326.8	326.5	338.2
States (East)	19.1	23.8	27.5	32.1	73.2	76.8
Municipalities (East)	2.8	4.5	5.9	7.7	8.5	7.2
Total (East)	22.0	28.3	33.4	39.8	81.8	84.0
European Union	31.5	34.2	36.6	40.7	40.0	39.4
Total tax revenues	661.9	731.7	749.1	786.2	814.4	800.0

* including childre's allowance

Source: Deutsche Bundesbank

The Federal government is suffering heavily from this development. Its tax income fell from 378.9 billion in 1994 to 338.4 billion in 1996. The Western States did better. They received a surplus of nearly 14 billion, the Western municipalities had to deal with a small reduction, while the Eastern States gained a substantial tax increase of more than 44 billion DM. But the reason for this was the replacement of the German Unity Fund and the integration of Eastern States and municipalities into the nation-wide financial equalisation system. Next to the Federal government, the Eastern municipalities are the losers because their tax revenues are still modest even after equalisation. In fact, they received slightly less revenues in 1996 than in 1994, before equalisation was implemented in the Eastern part of Germany.

What happened in our taxation system since unification was a shift from

〈Table 19〉 Tax revenues in Germany and its distribution between
Federal Government, States and Municipalities 1990–1996

(unit: percent)

	1991	1992	1993	1994	1995	1996*
States West	31.5	31.1	31.1	30.2	29.5	31.4
Munic. West	12.4	12.1	12.0	11.4	10.6	10.9
WEST/Total	43.9	43.2	43.1	41.6	40.1	42.3
States East	2.9	3.3	3.7	4.1	9.0	9.6
Munic. East	0.4	0.6	0.8	1.0	1.0	0.9
EAST/Total	3.3	3.9	4.5	5.1	10.0	10.5
Federal govt/Total	48.0	48.2	47.5	48.2	45.0	42.3
EU/Total	4.8	4.7	4.9	5.2	4.9	4.9

* including children's allowance

Source: Deutsche Bundesbank

the Federal level to the State level. The Federal government's share of total tax revenues fell sharply from 48 percent to 42.3 percent within only a few years. Looking at the State level (including the municipalities), we see a shift between the Eastern and Western States as well. There is a flat decrease in the Western States' share of total tax revenues from 43.9 percent in 1991 to 42.3 percent in 1996. The Eastern States' (including the municipalities') share tripled from 3.3 percent in 1991 to 10.5 percent in 1996.

To sum up, the integration of the Eastern States into the Federal financial system with its equalisation arrangements was mainly chargeable to the Federal government. Room to move had been restricted. On the other hand, the Western States held their financial position within the Federal system that they had occupied before unification took place.

3. Tax distribution

Studying the government's report on fiscal policy carefully, one finds that the Federal government has changed the German tax laws seventeen times since January 1990.

However this does not mean that the tax burden in Germany is increasing permanently.

In reality, the Federal government increased the tax burden and at the same time it lightened the tax burden as well. The seventeen modifications of tax legislation have resulted in a dramatic change of structure of taxation, that is, in a redistribution of the tax burden.

Between 1990 and 1998 the three levels of government received a net tax increase of 50 billion DM. In the same period the overall tax revenues amounted to nearly 6 trillion 400 billion. This was a total increase of 0.8

〈Table 20〉 Taxation on income 1970 to 1996

(unit: billion DM)

Year	Total Tax	Tax on consumption/ real property tax	among them: value added tax	other consumption tax	Real property tax
1970	154.2	86.5	38.1	31.5	14.8
1975	242.1	124.8	54.1	43.5	25.0
1980	365.0	185.3	93.4	55.1	33.8
1985	437.2	217.2	109.8	64.8	38.1
1990	549.7	285.3	147.6	84.1	47.5
1991	661.9	343.3	179.7	107.0	51.2
1992	731.7	377.6	197.7	119.1	55.6
1993	749.1	397.4	216.3	120.8	53.9
1994	786.2	431.4	235.7	131.5	56.8
1995	814.2	432.0	234.6	135.1	55.8
1996	800.0	443.0	237.2	138.6	60.5
Increase 90/96	250.3	157.7	89.6	54.5	13.0
in %	45.53	55.28	60.70	64.80	27.37

Source: Deutsche Bundesbank

percent. In fact, the overall tax increases since unification are not as important as one would assume looking at the 50 billion DM mentioned before.

Looking at the different kinds of taxes and the distribution of the tax burden according to relative factor incomes, one finds the two leading taxation principles of today's Federal government: shifting the tax burden from income taxes to consumption taxes, and within the income taxes, from the capital income to labour income.

〈Table 21〉 Taxation on income 1970 to 1996

(unit: billion DM)

Year	Total Tax	Income tax	among them: Wages tax	Assessed and non-assessed income tax	Corporation tax
1970	154.2	67.8	35.1	16.0	8.7
1975	242.1	117.3	71.2	28.0	10.1
1980	365.0	179.6	111.6	36.8	21.3
1985	437.2	220.1	147.6	28.6	31.8
1990	549.7	264.4	177.6	36.5	30.1
1991	661.9	318.7	214.2	41.5	31.7
1992	731.7	354.1	247.3	41.5	31.2
1993	749.1	351.7	258.0	33.2	27.8
1994	786.2	354.7	266.5	25.5	19.6
1995	814.2	382.2	282.7	14.0	18.1
1996	800.0	357.0	251.3	11.6	29.5
Increase 90/96 in bil. DM	250.3	92.6	73.7	-24.9	-0.6
in %	45.53	35.02	41.50	-68.22	-1.99

Source: Deutsche Bundesbank

In the period from 1990 to 1995 the total tax revenues increased by 250 billion DM, or by 45 percent. Taxes on consumption, that is, value added tax, and other consumption taxes like mineral oil duty, tobacco duty, sparkling wine duty and other smaller consumption taxes, increased by more than 60 percent (value added tax by 60.6 percent and other consumption taxes by 64.8 percent).

〈Table 22〉 Share of total income tax revenues

(unit: percent)

Year	Total Tax	Income tax	among them: Wages tax	Assessed and non-assessed income tax	Corporation tax
1970	100	43.97	22.76	10.38	5.64
1975	100	48.45	29.41	11.57	4.17
1980	100	49.21	30.58	10.08	5.84
1985	100	50.34	33.76	6.54	7.27
1990	100	48.10	32.31	6.64	5.48
1991	100	48.15	32.36	6.27	4.79
1992	100	48.39	33.80	5.67	4.26
1993	100	46.95	34.44	4.43	3.71
1994	100	45.12	33.90	3.24	2.49
1995	100	46.94	34.72	1.72	2.22
1996	100	44.63*	31.41*	1.45	3.69

* Since 1996 the children's allowance has been a part of the general tax allowances, therefore the share is lower. Without the children's allowance, the share of income taxes and wages taxes would be 46% and 33% respectively.

Source: Deutsche Bundesbank

In the same period, income taxes - that is, wages taxes, assessed and non-assessed income tax and corporation tax - increased by a total of 92 billion DM, or by 35 percent, where wages tax revenues are contributing 73 billion DM or 80 percent to that increase. At the same time, the assessed and non-assessed income tax basis eroded and one may find a decrease by nearly 25 billion DM or by 69 percent. Even the corporation tax revenues fell from 30.1 billion DM in 1990 to 29.5 billion DM in 1996, or by 2 percent.

Looking back on the taxation on income and the distribution of the tax burden, one finds a permanent shift by the lightening of the burden on the wealthier part of society, the people who pay assessed and non-assessed income tax. At the same time taxation on wages has increased continuously.

4. Tax revenues and social security burden

In relation to the big challenges Germany has to face after unification, one might be surprised that the tax burden did not increase dramatically. On the contrary, the tax burden quota fell slightly if one considers the new children's allowance arrangements. If one does not take the children's allowance arrangements into account, the tax burden quota in Germany has increased modestly from 23.2 percent in 1991 to 23.8 percent in 1996.

Looking at both parts of Germany one finds that the tax burden quota in the old States has increased by about 1 point from 23.6 percent in 1991 to 24.5 percent in 1996. The new States did better: starting from a lower level, their tax burden quota has increased from 18.2 percent in 1991 to only 18.5 percent in 1996.

There is, however, a different picture when one looks at the total tax revenues, the duties and the social security contributions. It should be remembered that pension insurance and unemployment insurance are contributing heavily on payments to East Germany. Between 1991 and 1997, both insurances transferred more than 180 billion DM. That is nearly 16 percent of the total gross transfers to the new States.

Even before unification, social security contributions reached a high level. After unification the situation worsened. Social security contributions went up from 513 billion DM in 1991 to 707 billion in 1996. That is an increase

〈Table 23〉 Tax revenues and Social security contributions in current prices

(unit: billion DM)

	1991	1992	1993	1994	1995	1996	1996*
GNP/East	206.0	262.6	314.0	354.5	380.7	397.7	397.7
Tax revenues East	37.4	44.5	53.2	67.3	70.9	73.6	65.8
Tax burden quota (%)	18.16	16.95	16.94	18.98	18.62	18.51	16.55
GNP/West	2,647.6	2,813.0	2,844.1	2,965.9	3,076.7	3,143.3	3,143.3
Tax revenues/West	624.5	687.2	695.9	718.8	743.4	769.8	734.2
Tax burden quota (%)	23.59	24.43	24.47	24.24	24.16	24.49	23.36
Total GNP Germany	2,853.6	3,075.6	3,158.1	3,320.4	3,457.4	3,541.0	3,541.0
Total tax revenues	661.9	731.7	749.1	786.1	814.3	843.4	800.0
Total Tax burden quota (%)	23.20	23.79	23.72	23.67	23.55	23.82	22.59
Total Social security contribution	513.3	561.6	596.3	639.4	669.9	707.1	707.1
Total Tax revenues and Total Social contribution	1,175.2	1,293.3	1,345.4	1,425.5	1,484.2	1,550.5	1,507.1
in %	41.18	42.05	42.60	42.93	42.93	43.79	42.56

* including children's allowance

Source: BMF, Statistisches Bundesamt, ifo Dresden 4/97

of 38 percent. The social security contribution share amounted to 17.9 percent of GNP before unification. This share continuously increased to more than 19.9 percent of GNP in 1996. An important reason for placing the burden of unification costs on the social security system is undoubtedly the fact that employees do not have any chance to avoid social security contributions, since they are deducted from the employees' wages automatically. Evading taxes is much easier even for employees.

Both tax revenues and social security contributions are much higher today than they had been before unification. The overall tax and social security burden quota increased from 41.2 percent in 1991 to 43.8 percent in 1996.

5. Public Debt

For a long time public debt had not been a subject of worry in Germany at all. In the second half of the fifties, the national debt amounted to 50 billion DM. That was 18 percent of the Gross National Product. In comparison to international standards, this was an extremely small share. The reason for that was the currency reform after World War II, when the old German currency, the Reichsmark, had been replaced by the Deutsche Mark. The financial assets had been devalued by conversion rate of 1 new DM: 10 old Reichsmark. That was a good bargain for owners of fixed assets and debtors, but a bad bargain for savers and financial investors. It should be noted that the German Government had been one of the biggest creditors at that time.

After the currency reform in 1923, the German savers had been expropriated by the German Government a second time in 1948. That explains the low indebtedness rate in the fifties. This makes clear the extreme sensitivity of the Germans about inflationary processes in general and government bor-

rowing in particular. It is no surprise that next to Switzerland, Germany has had the lowest inflation rate after World War II.

〈Table 24〉 Increase in national debt

Period/Year	billion DM	in percent of GNP	Increase in percent
1955/59	50	18.4	5.1
1960/64	74	17.6	8.3
1965/69	118	19.8	9.8
1970/74	192	19.6	10.3
1975/79	414	29.8	16.6
1980/84	718	41.0	11.6
1985/89	929	41.8	5.3
1990/94	1,662	50.1	12.3
1991	1,174	41.1	11.4
1992	1,345	43.7	14.6
1993	1,509	47.8	12.2
1994	1,662	50.1	10.1
1995	1,996	57.7	20.1
1996	2,135	60.3	7.0

Source: Deutsche Bundesbank

In the seventies, the Federal government financed a high level of public activities by tapping the capital market. As unemployment exceeded the one million margin in the second half of the seventies, the indebtedness rate nearly doubled in comparison with the previous ten years. Ten years later

the conservative Federal government gave up the fight against unemployment, reduced government spending and thus its borrowing requirements. The indebtedness rate fell from 16 percent in the late seventies to 5 percent in the late eighties.

〈Table 25〉 Increase of public debt absolute

(unit: billion DM)

	1989	1994	1996	Increase 94/96 absolute	Increase 89/96 absolute
Federal Government	491	712	840	128	349
States/West	310	415	478	63	168
States/East		56	82	26	82
Municipalities/West	121	156	166	10	45
Municipalities/East		32	39	7	39
Special funds	7	291	531	240	524
among them					
ERP	7	28	34	6	27
German Unity Fund		89	84	-5	89
Debt Processing Fund		102			
Redemption Fund			332	332	332
Federal Railways Fund		71	78	7	78
Equalisations Fund for safeguarding the use of coal			3	3	3
Total debt	929	1,662	2,136	474	1,207

Source: Deutsche Bundesbank

The situation completely changed after unification. At the beginning of the nineties, more than 60 percent of the financial burden of unifying Germany had been raised on the capital market. The indebtedness rate doubled and even quadrupled in 1995.

The total national debt of all three levels of government in Germany increased by 129 percent.

Looking at each level of government, one finds a very differentiated picture. What hits one right in the face are the special government funds. Up to 1989 there had been only one special government fund, the European Recovery Program. In 1989 the Reconstruction Loan Corporation (Kreditanstalt fuer Wiederaufbau), which deals with the ERP, had refinanced their activities by a total of 7 billion DM on the capital market.

After unification the Federal government created new special government funds like the German Unity Fund, the Debt Processing Fund and most important of all, the Redemption Fund for Inherited Liabilities. These special government funds have grown by 7485 percent, in absolute figures: from 7 billion DM in 1989 to 524 billion in 1996.

After unification the borrowing requirements of the Federal government itself increased by 71 percent, the borrowing requirements of the Western States by 54 percent and the municipalities increased their debt by only 37 percent in the same period of time.

As mentioned before, the main bulk - that is, about 85 percent - of the financial burden of unification is shouldered by the Federal government. Consequently, the Federal government's borrowing requirements increased sharply. The total national debt including special government funds which are controlled by the Federal government, increased by 175 percent or 873 billion DM.

〈Table 26〉 Increase of national debt

(unit: percent)

	1994/1996	1989/1996
Federal Government	18.0	71.1
States/West	15.2	54.2
States/East	46.4	
Municipalities/West	6.4	37.2
Municipalities/East	21.9	
Special funds	82.5	7,485.7
Total debt	28.5	129.9

Source : Deutsche Bundesbank

But financing unification by tapping the national and international capital market has been limited by the sharp increase in interest burden. The Federal government's interest payments exploded from 34 billion in 1990 to 84 billion in 1996. The interest payment/tax revenue-ratio - that is, the share of total tax revenues which are spent for interest payments - nearly doubled from 13.2 percent in 1990 to 25.5 percent in 1997. These alarming figures forced the Federal government to change its politics again. Because of the sharp increase in national debt, politics runs the risk of being strangled.

6. Federal Budget

Before I close my talk, I will finally present some figures which demonstrate the heavy burden caused by the dramatic increase of public debt. A dramatic shift within the Federal budget is taking place. The financing of the public debt is becoming more and more important. Only on social and labour affairs is the government spending more than on interests. Even on

substantial public expenditures, like economic aid and grants for the active labour market, policies are going to be reduced.

Due to the high unemployment figures, Germany is forced to spend 150 billion DM in order to finance unemployment benefits and labour market programs such as vocational training, emergency work and so forth. The Federal government supported the unemployment insurance by providing grants for an active labour market policy. Now the Federal government is

〈Table 27〉 Medium term financial planning of the Federal Government

(unit: million DM)

Budget estimates		draft budget	fiscal planning	fiscal planning	fiscal planning
	1997*	1998	1999	2000	2001
Total budget expenditure	458,600	461,000	462,300	471,100	480,000
Interest payment**	54,516	56,819	60,659	65,924	68,872
in % of total budget	11.9	12.3	13.1	14.0	14.3
German Unity Fund	9,509	9,509	9,599	9,509	9,509
in % of total budget	2.1	2.1	2.1	2.0	2.0
Redemption Fund	25,750	26,400	26,700	26,800	26,800
in % of total budget	5.6	5.7	5.8	5.7	5.6
Trust Agency debt	1,426	2,313	2,646	1,778	1,521
in % of total budget	0.3	0.5	0.6	0.4	0.3
Public investment	59,090	58,290	59,840	59,880	59,300
in % of total budget	12.9	12.6	12.9	12.7	12.4
Total interest payments	91,201	95,041	99,604	104,011	106,702
in percent	19.89%	20.62%	21.55%	22.08%	22.23%

* inclusive supplementary budget.

** on national debts

Source : Federal Government's Medium term financial planning

drawing back from this policy: in 1997 the Government disposed financial means of 50 billion DM. Four years later in 2002 it will have reduced these grants to 28 billion DM. This is a most important decision by the Federal government in order to meet the new challenges created by the increase of national debts. To choose a second example, in its medium term financial planning the Federal government is going to reduce economic aid (for example the Joint Federal Government/States Scheme, "Improving the regional economic structure"). These government grants are an essential aid to support investments in enterprises mainly in the new States.

In 1997 the Federal government spent a total of 59 billion DM on public investment projects. That is nearly 13 percent of total budget expenditures. At the same time the Government had to pay for interests by a total of 91 billion DM. That is nearly 20 percent of total expenditures. This share will increase up to 22.2 percent in the near future as the Federal government predicts in its medium term financial planning.

Tapping excessively into the capital markets is not a political alternative any more. Increasing taxes and social security contributions in a globalised economy is no alternative either. The Germans will probably face shock in the near future because the Government will be bound to cut expenditures by a scale which has been unknown up to now. It is unlikely this will happen within the next 12 months. But the shock will occur at the latest after the next general election on September 26th, 1998.

〈國文要約〉

統一費用 調達方案으로서 獨逸의 財政政策

독일의 統一費用과 통일 독일의 財政政策에 관해 설명하고자 한다. 잘 알려진 바와 같이 1989년 11월 9일 베를린 장벽이 무너지고 나서 1년도 채 안되어 독일은 통일이 되었다. 통일 전에 서독 정부, 학계의 전문가들은 동독의 경제상황이 좋지 않다는 것은 알고 있었으나 다른 공산주의 국가보다는 훨씬 형편이 나으며 어느 정도의 效率性을 유지하고 있는 것으로 평가하고 있었다. 이와 같은 평가에 따라 통일에 대비한 준비가 어느 정도는 되어 있는 실정이었다.

그러나 이러한 사전준비 및 사전정보 축적도 갑작스런 동독의 와해 후 급변하는 상황에 대처하기에는 대단히 부족한 것이었으며, 그 결과 통일 후의 經濟政策, 특히 財政政策은 갈팡질팡하는 양상을 벗어나지 못하게 되었다.

사실상 독일의 통일에 대한 대비는 경제적으로 더 이상 기대하기 어려울 정도로 잘 되어 있었다고 해도 과언이 아니다. 통일 당시 독일은 미국, 일본과 함께 세계무역의 주도권을 나누어 가지고 있었으며 貿易收支 黑字는 1,000억DM를 넘었고, 經常收支 黑字는 GDP의 4%를 넘었다. 이에 따라 통일 후의 수요증대에 의한 인플레이 압력은 쉽게 흡수될 수 있었다. 한편 국제 자본시장의 여건상 통일비용의 조달도 큰 문제가 아니었다. 예를 들어 독일의 재정적자는 GNP의 5%에 불과해서 전세계 자본수요의 0.33%를 차지하는 수준이었다.

또한 經濟外的으로도 유럽뿐만 아니라 전세계 대부분의 국가들이 독일의 통일을 원해 왔다는 유리한 정치적 환경까지도 확보하고 있었던 것이다. 이렇게 상당히 충실한 대비, 유리한 정치·외교적 환경 등이 갖춰져 있었음에도 전술한 바와 같이 실제로는 엄청난 經濟的 衝擊 및 混亂이 나타났다.

1. 빅뱅式 接近方法

독일의 통일정책은 OECD국가들 사이에서 흔히 「빅뱅(big bang)식」이라고 불린다. 그 주요 내용은 高年金, 失業手當, 社會扶助, 住宅補助 등 서독주민들이 누리던 기존의 사회복지 혜택이 그대로 동독주민에게도 적용되었고 특히 임금, 연금 등에 있어 서독과 동독 화폐의 1 대 1 교환이 가능했던 것이다. 그런데 문제는 賃金에 있어서의 1 대 1 교환이 동독지역 기업 및 經濟恢復에 결정적 타격을 입혔다는 것이다. 즉, 이러한 교환은 생산성 증가를 훨씬 능가하는 賃金上昇을 보장하는 것이었으며 이에 따라 勞動需要 減少와 不況, 아울러 실업수당 증가에 의한 政府負擔의 增加를 초래했다.

한편 동독지역 기업(즉, 국유기업)의 신속한 민영화로 경제회복을 추구하기 위해 信託廳(Trust Agency)이 설립되었으나 일부 국영기업을 매각하는 것과는 달리 동독지역의 거의 모든 기업을 일시에 매각하는 것은 결국 실패하였다. 당초 매각에 의해 6,000억DM의 수입이 예상되었으나 1994년 신탁청이 폐쇄될 당시 순손실은 2,040억DM에 달했으며, 民營化된 統一企業들의 고용수준은 80% 정도 감소하였던 것이다. 이러한 정책실패는 동독지역의 경제회복이 지연되게 된 또 하나의 원인이 되었다고 할 수 있다.

통일과 함께 구동독 지역의 公共負債도 큰 문제였다. 이 부채들은 구동독 정부의 채무, 국영기업의 채무, 지방정부 채무 및 화폐교환 충당기금(Currency Conversation Equalization Fund) 등인데 이들을 포함하여 1996년 말까지 통일에 관련된 부채는 4,540억DM에 달하였다. 이러한 국가채무상환은 一般會計가 아닌 통일 관련 特別政府基金에 의해 충당되었다.

2. 經濟體制 轉換 問題

이미 지적인 바와 같이 독일통일이 가져온 경제적 충격은 예상보다 훨씬 컸다. 우선 콜수상이 1990년 총선 때 약속했던 것과는 달리 統一費用 마련을 위한 增稅가 17차

레나 있었다.

특히 失業問題가 가장 큰 문제로 부각되었다. 예를 들어 1989년 구동독 지역에서는 970만명의 고용이 가능했으나 3년 후 고용인구가 630만명으로 축소되었으며 특히 농업, 운수, 통신, 무역 등의 분야에서 그러한 현상이 두드러지게 나타났다. 다음으로 중요한 문제는 生産과 消費의 隔差이다. 1991년 1,520억DM에서 1994년에는 2,100억DM으로 이 격차는 계속 증가하였으며 현재도 2,000억DM를 넘을 것으로 추산되고 있다.

이와 같이 소비가 생산을 능가한 것은 두말할 필요없이 고용감소가 큰 이유이나 통일 후의 增稅, 政府支出 減少, 資本市場에서의 驅逐效果(crowding-out effect) 등에도 원인이 있다고 하겠다.

동독지역의 경제회생을 위해서는 구서독으로부터의 막대한 금액의 이전 및 보조가 필요하였다. 이러한 보조의 상당부분은 연금, 실업보험 등 社會保障 支出에 집중되었고 또한 이미 지적된 바와 같은 생산과 소비의 격차를 보전하기 위해 투자보다 소비지출에 더 중점이 두어졌다. 물론 이와 아울러 철도, 통신, 도로, 수로, 에너지 등의 社會間接資本과 환경보호, 기술개발 등의 투자에도 많은 지출이 이루어졌으나, 통일 후 지금까지는 당장의 필요에 의한 消費支出 爲主의 구조가 형성되어 왔다.

3. 財政制度

독일의 재정제도는 연방정부, 주정부, 지방정부의 3단계로 구성되어 있는 연방제도와 밀접하게 연관되어 있는바, 특히 독특한 세입분할제도인 共同稅制度가 중심이 되고 있다. 잘 알려진 바와 같이 共同稅는 소득세, 법인세, 부가가치세로 구성되어 있으며, 이 3개 세목 외에 독점기업수입, 담배·커피·주류 등에 대한 개별소비세는 聯邦稅로, 자동차세, 재산세 등은 州稅로, 지방소비세 등은 地方稅로 징수되고 있다.

이러한 세입분할 및 재정지출제도의 목적이 地域均等化에 있다는 것은 주지의 사실인바, 통일 후 이러한 원칙을 구현하기 위해 연방정부와 구서독주들의 재정으로 충당되는 獨逸統一基金이 설립되었다. 따라서 독일통일기금은 통일이라는 돌발사태에 대

비하여 도입된, 구서독의 지역균등화제도에 대한 일종의 대체물이었던 셈인데, 경제가 안정됨에 따라 1995년에 이 기금도 폐지되고 다시 독일 全州間의 지역균등화제도가 정착되고 있다.

4. 租稅 및 稅外收入

독일의 租稅收入은 1990년대 초반까지의 호황에 힘입어 계속 호조를 보여 왔다. 이러한 추세는 통일 후 경제가 어려워졌을 때에도 계속되어 1991년 6,619억DM이던 총 세수가 1995년에는 7,862억DM에 달하였다. 반면 경제회복이 시작된 1996년 이후 稅收은 오히려 감소하였다. 이것은 세수에 있어 일종의 時差效果가 존재하는 것을 반영하는 것이며 따라서 향후 당분간 이러한 추세가 지속될 것으로 예상된다. 특히 연방정부에서 세수감소가 두드러진 반면 구서독의 州들은 상대적으로 稅收減少의 영향이 적었다.

한편 稅目別 稅收構成을 보면 1990년 이후 所得稅보다 消費稅의 비중이 높아지고 있으며, 소득세 내에서도 資本所得稅보다 勤勞所得稅의 비중이 높아지고 있다.

이상에서 살펴본 바와 같이 순수한 租稅負擔은 통일 후 그다지 증대하지 않았다. 예를 들어 1991년 23.2%이던 조세부담률은 1996년 23.8%로 소폭 증가하는 데 그쳤다. 그러나 전체 국민부담은 1991년 5,130억DM에서 1996년 7,070억DM로 38%나 증가되었다. 이에 따라 통일 전 17.9%에 달하던 社會保障負擔率은 통일 후 19.9%로 증가하였으며, 국민부담률은 41.2%에서 43.8%로 증가하게 되었다.

5. 公共債務

다른 나라와 마찬가지로 독일에 있어서도 公共債務는 경제적 중요성을 가져왔으며 역사적으로도 항상 관심의 대상이 되어 왔다. 따라서 공공채무를 감소시키고자 하는 노력이 지속되어 왔으며 聯邦債務의 增加率을 1970년대 후반의 16%에서 1980년대 후반에는 5%대로 減少시키는데 성공하였다. 그러나 예상된 바와 같이 통일 후 급증

하는 재정수요 때문에 공공채무는 다시 급증하여 1996년에는 무려 2조 1,360억DM에 달하게 되었다. 이에 따라 利子費用만도 1990년의 340억DM에서 1996년 840억DM로 증가하게 되었다. 이러한 공공채무의 증가가 가져오는 驅逐效果, 物價引上 등 바람직하지 못한 경제적 효과도 문제이지만, 利子費用의 增加에 의한 재원의 가용성 하락도 향후 심각한 정책과제로 대두될 것이다.

〈第 1 主題 討論〉

❖ 高日東(韓國開發研究院 研究委員)

Funken 박사는 독일통일 이후의 經濟政策과 그 示唆點에 대해 논의하였는데 몇 가지 보완해야 할 사항을 지적하고자 한다.

먼저, 독일의 통일정책이 빅뱅식이라고 하였는데 통일은 선택의 문제가 있기 때문에 빅뱅식이나 점진적이나보다는 갑자기 장벽이 무너졌을 때 어떻게 할 것인가를 논의해야 할 것이다.

그리고 Funken 박사는 貨幣交換比率, 東獨經濟의 開放, 貨金의 계속적인 上昇 등 독일통일 후의 3가지 충격을 지적하였다. 통일시에 이러한 충격을 어떻게 통제할 것인가가 가장 중요한 문제인데, 이것은 경제의 기본적인 건강도와 관련이 있다고 본다. 특히 貨金이 중요한 문제이다. 남북한의 임금과 생산성 격차가 계속 확대되면 失業率 上昇, 社會保障支出 擴大 등의 문제가 심각해질 것이므로 貨金政策은 재정 및 예산정책에도 큰 영향을 미친다. 재정정책의 관점에서 보면 임금보조와 사회보장 중 전자가 비용이 덜 소요될 것이다.

다음은 統一費用의 調達問題인데 남북한 통일시 남한 납세자의 부담은 서독의 경우보다 훨씬 클 것이므로 국제시장에서의 신뢰도를 제고하여 독일통일에서와 같은 충격을 줄이는 데 도움이 될 수 있을 것이다.

결론적으로 수요측면에서 통일비용을 줄이는 것은 貨金統制의 問題이고, 공급측면에서는 통일비용을 조달하는 문제는 국제시장에서 信賴度 提高 問題라고 할 수 있다.

❖ 柳一鎬(韓國租稅研究院 副院長)

Funken 박사의 논문에는 獨逸統一 後의 經濟政策과 그것이 초래한 問題들이 짧은 지면임에도 불구하고 소상하게 나열되어 있다. 그러나 이러한 것 중 무엇이 가장 중요하며, 이 정책들에 대해 구체적으로 어떻게 평가할 수 있는지, 더 나아가 우리나라의

政策樹立에 대한 示唆點은 무엇인지에 관한 설명은 다소 미흡한 감이 있다.

이 논문에서는 독일의 경제적 통일방식인 빅뱅식 접근법을 설명하고 그것이 초래한 문제점도 잘 설명하고 있다. 이 논문에도 잘 나타나 있고 이미 일부 알려진 바와도 같이, 租稅負擔率에 변화가 없고 社會保障負擔金의 증가도 별로 크지 않은 점을 고려할 때 빅뱅방식은 결국 國家債務에 의존하는 정책이었다고 볼 수 있다.

Funken 박사는 빅뱅방식이 초래한 문제 때문에 이에 대한 비교적 批判的인 시각을 가지고 있는 것으로 이해된다. 그러나 과연 결점이 있음에도 불구하고 이 방식을 불가피하게 선택할 수밖에 없었는지 아니면 다른 방식을 선택할 수 있는 가능성이 존재하였는지에 대한 평가가 내려져야 할 것이며, 만약 선택된 방식이 합당하지 않았다면 대안은 무엇이며 그 결과는 어떻게 나타날지에 대해서도 성찰해야 할 것이다.

독일의 통일과 이에 따라 초래된 문제해결 방식에 대한 평가가 어떻게 내려지든 간에 우리가 독일의 경험을 그대로 모방할 수는 없을 것이다. 예를 들어 논문에도 지적된 바와 같이 독일은 막대한 外換保有高, 자본시장에서의 높은 國際的 信賴度, 國內資本市場의 發達 등 우리나라와는 비교가 안될 정도로 유리한 환경에 처해 있었기 때문이다. Funken 박사는 이러한 차이점에 입각하여 우리나라에 어떤 政策勸告를 할 수 있을지 궁금하다.

또한 자본시장에서의 불리성이라는 점을 감안할 때 우리나라의 경우 독일에 비해 상대적으로 국채보다는 租稅負擔에 더 의존해야 할 것이다. 그런데 이 경우 어떤 세목에 중점을 두어 증세할 것인가의 문제가 대두된다. Funken 박사의 논문에 의하면 독일은 소득과세보다는 消費課稅의 비중을 높인 것으로 나타나 있는데 우리의 경우도 이러한 방향을 채택해야 하는지에 관하여 더 많은 연구가 필요하다고 생각한다.

Session II

Financing Alternatives of Korean Unification Costs

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Contents

- I. Introduction**
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I . Introduction

There have been several previous studies done on estimating unification costs in Korea. Even though these previous studies have made significant contributions in showing that unification costs can be very large, they have had several drawbacks. First, most of them estimated unification costs based on ad-hoc assumptions, without considering factors such as willingness to pay or the ability to pay. The unification costs vary considerably in each study according to the assumptions they adopt. Second, there has not been enough discussion on the financing methods of unification costs. Third, partially in relation to the first and second points, no study considered the macroeconomic aspects of unification. That is, there had been no analyses on how the size of unification costs and financing methods affect the economy after integration.

Hence, there is a need to develop a richer model in which unification costs are determined as a function of policies and in which the macroeconomic effects dependent on financing methods and their scope can be considered more precisely. The study of Choi and Park (1997) made an attempt to develop a framework in which the macroeconomic effects of the policy can be analyzed. There is, however, a further need to study the methods of financing unification costs. Such study should consider two aspects; the macroeconomic effects of each financing method, and the institutional aspects. This paper attempts to discuss the institutional aspects lacking in the macro model in Choi and Park (1997) from a more realistic perspective.

The paper is organized as follows. In chapter 2, previous studies on unification costs are reviewed and, questions on whether it is feasible to follow

the policies pursued in Germany after their unification are discussed. A discussion on German experiences is useful because the German unification is the only important case of unification we can refer to¹⁾. Many of the previous studies done on the unification of Korea either referred to or partially imitated German experiences. However, we should be aware of the differences in the situation of Korea and in that of Germany.

Next, in chapter 3, some of the results found in the study of Choi and Park (1997) are summarized. Since unification costs depend on the policies adopted after unification, and since there is no policy with a national consensus, trying to estimate the exact amount of unification costs is not meaningful. Thus, a model in which the expected amount of unification costs can be calculated according to the policies pursued is presented here. By using this model, an attempt is made to analyze how the size of unification costs and financing methods will affect the economy.

The model, however, has limitations of its own. One of them is that a study based on a model often does not fully consider institutional factors. So in chapter 4, the question of how unification costs can be financed and what tax policies should be pursued are discussed. Finally in chapter 5, the results are summarized and conclusions drawn. Based on the results of earlier chapters, some of the most fundamental questions on unification such as "Can we afford unification?" and "What policies should be pursued regarding unification costs?" are sought to be answered.

1) There has also been the case of the Yemen unification. However there are less policy lessons that can be learned from that case.

II. Unification Costs in Germany and in Korea

1. Unification Costs in Germany

There have been several different estimates made on the unification costs of Germany. Most of them done before or immediately after unification estimated costs to have been between 1 trillion and 2 trillion DM for 10 years, or approximately between 3.5% and 8.0% of West Germany's GDP. The size of unification costs depends on how unification costs are defined, especially whether private investments are included in the costs or not. The above figures have generally included private investments, so government transfers from the West German region to the East German region should be far smaller than that estimated in the costs.

When only government transfers from the West Germany region to the East Germany region were considered, they constituted about 5.4% ~6.4% of West Germany's GDP (see Table 1 below).

〈Table 1〉 Government transfers to the East German region

(unit: billion DM)

	1991	1992	1993
Amount	140	152	181
ratio of GDP (%)	5.4	5.5	6.4

Even though government transfers to the East Germany region began to fall in 1996, total unification costs turned out to be larger than the estimated amount immediately following unification. Large government transfers to the East Germany region presented the greatest difficulty following unification.

2. Korean and German Post-unification Policies

Since the German experience is the only significant experience that can be referred to in considering policy alternatives for Korea, we naturally tend to think of imitating the policies of Germany. However, it would be dangerous to blindly pursue German post-unification policies due to several differences in the cases of Korea and Germany. First, the population ratio between South Korea compared to North Korea is different from that of West Germany to East Germany. The population of South Korea is only about two times of that of North Korea, while the population of West Germany was four times that of East Germany. So, even given that all other conditions are equal, this implies that the burden on South Koreans after unification will be twice much as that faced by West Germans if same policies are followed.

Other conditions, however, are not equal, and this makes it even harder for Korea to pursue the same policies as those pursued by Germany. The per capita GDP gap of the two Koreas is larger than that which existed in the two Germanies. The ratio of the per capita GDP of South Korea to that of North Korea is more than 10, while that of West Germany to East Germany was estimated to be about 2²⁾. So if an attempt is made to raise the incomes of the residents in the North Korean region to that of the residents in the South Korean region within a few years, there will be an enormous impact on unification costs.

The differences between Korea and Germany are not necessarily all of a pessimistic nature. Since the level of the quality of life in North Korea is cur-

2) In fact, it turned out to be more than 2 after unification because many of the statistics relating to East Germany were exaggerated.

rently very low, the expectations of the residents in North Korea may not be altogether that high. It is believed that most of the East Germans did expect to live as well off as the residents in West Germany within a few years, and that is indeed what the chancellor of West Germany promised. However, in Korea, the difference in the economic standard of living between South Korea and North Korea is so enormous that if unification actually takes place, the hope of North Korea's residents is not so much that they should be able to live as well off as the South Korea's residents, but simply that they should be able to enjoy better economic terms.

There are other differences between Korea and Germany in considering the policy assumptions, necessary to estimate the unification costs. For example, the social security system of the two countries are different. While they have a comprehensive social security system in Germany, the social security system in Korea has a short history and provides limited coverage. Thus, in designing a social security system to be implemented in the North, the German experiences can not be imitated.

3. Unification Costs in Korea

The differences between Germany and Korea as outlined in the foregoing section have been pointed out by many German and Korean scholars. Some of the previous studies on estimation of unification costs in Korea have considered these factors, and have generally not assumed the same policies as Germany. However, the size of unification costs estimated by many scholars and research institutes have still turned out to be very large and thus evoked some pessimistic, anti-unification attitudes among some South Koreans. The estimated size of costs in previous studies showed such a huge divergence.

Since the unification of Korea is currently only a possibility and not yet an actuality, estimates of unification costs may depend on what scenario is adopted. This paper will only consider the "Big Bang" approach which was taken in Germany. The estimates of unification costs in most of the previous studies (excluding those with extreme values and those that included private investments) are between 220 billion and 780 billion US dollars for the next 10 years. That is, about 4% ~14% of South Korea's GDP for the next 10 years³⁾. When the ratio of the GDP is compared, it is between 1 to 3 times greater than that of Germany⁴⁾.

4. Problems Arising from Previous Studies

There have been several estimates of unification costs in Korea made in previous studies, but there is a large divergence. One newspaper article even reported that unification costs diverge greatly from study to study, one estimate being even 100 times greater than another estimate. Admittedly, the report made several errors in its comparisons, nevertheless it is clear that discrepancies exist in the estimated figures on unification costs. The discrepancies can be partly explained by the different definitions of 'unification costs' adopted. Since the unification of Korea is presently only a possibility that has not happened yet, unification costs can be estimated on either the "Big

3) This is assuming that the two Koreas are unified in 1998 and the growth rate of the South Korea region after unification is about 5% (a rate that is about 1%-2% lower than the current growth rate).

4) These are only rough figures and there can be errors due to the exchange rates used. Furthermore, the unification costs of Germany are not clearly known. In absolute figures, unification costs in Korea will be approximately between 22% and 130% to that of Germany.

Bang" approach or the gradual approach. However, studies do not clearly define which approach has been taken for the purposes of estimation, and each study tends to adopt different definitions, some including private investments as part of unification costs, and others excluding them from their calculations.

But more importantly, discrepancies may occur due to the different policy assumptions adopted. Unification costs invariably depend on the nature of policies, and attempting to estimate unification costs without knowing what policies to pursue after unification is nothing less than arbitrary. Seen from an extreme, trying to estimate the exact costs of unification is an utterly futile exercise, since there exists no policy with a national consensus. However, estimation of unification costs is still necessary, in order to build national consensus on unification policies. Through trial and error experimentation, unification costs can be used to locate a national consensus (that is, gauging public opinion by presenting various estimates of the unification costs), from which a more concrete unification policy can be formulated to avoid any later confusion concerning policies after unification.

In some senses, previous studies have made contributions in this area. Overall, they have generally conveyed the message that unification costs could be substantially large. However, the usefulness of these previous studies are limited in many respects. The framework of the analyses have tended to be very limited, and unification costs in a majority of the previous studies have not been represented as functions of policies, but have only been based on ad-hoc assumptions. Furthermore, little progress has been made in the way of analyzing macroeconomic effects, and there have not been enough discussion on the alternative methods of financing. Without these then, there is little room for achieving national consensus on unification policies.

III. Unification Costs and the Macroeconomy

1. Policy Assumptions

This chapter summarizes the main results of Choi and Park (1997). The model employed is one in which anticipated unification costs can be estimated depending on the policies pursued. The model used is a variation on the macro-economic forecasting model of South Korea, partially including the North Korean economy. The model is inherently limited in that it is not possible to consider several policy options in this model. Thus, it is necessary to make assumptions concerning fundamental policies.

This model begins with the assumption that it is difficult to mirror policies implemented in Germany after unification, because of the costly effects of such a move. It was also assumed that policies are, in general, faithful to fundamental economic principles. That is, even though a minimum level of quality of life may be guaranteed from a humanitarian perspective, this is not intended to be a guarantee of a rapid equalization of income levels between the South and the North. Resources from the South Korean region, spent in the North Korean region are intended to motivate rapid economic growth in the North Korea region, and the income of a North Korean resident will depend mainly on his or her productivity. While assumptions may be varied, the following assumptions are initially made in relation to post-unification policies.

(a) Liberalization of Prices

Prices in the North Korean region will be liberalized. Regulation of prices will be used only if it is unavoidable. But it can be assumed that extra-gov-

ernment expenditure guaranteeing the level of prices in the North Korean region will be small.

(b) Currency Integration

Currency integration will take place at once and will be based on the market exchange rate. This is different from the German case, in which the value of the currency of East Germany was overvalued in comparison to the actual market rate. This kind of compensation through the overvaluation of the North Korean currency will raise sudden the expectations of the North Koreans and place a heavy burden on the future of the economy, while also distorting the price mechanism. When necessary, compensation can be carried out by other measures such as direct transfers. Thus, immediate currency integration will not cause any direct burden. The amount of the new money supply is assumed to be equal to the amount of currency in North Korea and thereby will not cause inflation.

(c) Privatization

All assets in the North Korean region (except for personal belongings) will become national property. Housing, under a certain specified value, will be distributed to original residents. To acquire housing above that specified value, the difference between the actual value of the housing and the certain specified value would be paid for by the purchaser. Revenue from the sales of housing will be used to build new homes and to rebuild old housing such that the extra expenditure on housing will be minimized.

Productive assets will become national property immediately following unification. Farmlands will be distributed at no charge, but under certain restrictions. To claim legitimate ownership of farmlands, cultivation of the

land for a requisite period must be shown. This economic incentive would have the effect of reducing excessive immigration to the South. Other productive assets will be privatized using a voucher system. Every worker except farmers, will be given a voucher. Before privatization of the productive assets takes place, workers would receive dividends from the vouchers. When the productive asset is eventually privatized, the worker would get a lump-sum payment.

The amount of compensation for North Korean residents is set equal to the amount of the marketable productive assets in North Korea. The assumptions here are not intended to provide policy suggestions, but are adopted to make the necessary calculation of unifications costs. The above assumptions are not intended to generate neither extra expenditure nor revenue from such privatization but are adopted from the perspective of calculating unification costs. Thus variations on the assumptions relating to privatization policies are possible as long as they assume no extra expenditure nor extra source of revenue from the privatization.

(d) Social Security

The social security systems of the South Korean region and that of the North Korean region will be operated separately. This is justified on the grounds that, a great portion of the social security system in Korea is based on individual contributions rather than on the general government budget⁵⁾. To minimize any possible effects of post-unification shock, and to guarantee the minimum standard of quality of life, the North Korean social security

5) Health care, retirement benefits, and unemployment benefits require a degree of contribution; and fees are charged for education in the South.

system will need to be more extensive than in the South. Education and health services should be provided for free, and unemployment and retirement benefits should be paid to all those eligible.

(e) Immigration

Once unification is achieved, there should be no constitutional restrictions on immigration between the two Koreas. Sudden waves of immigration should only be limited through economic incentive mechanisms. The social security system would be one such mechanism. Distribution of land and compensation vouchers can be designed to provide economic incentives not to move to the South. Regardless, large scale immigration is still to be anticipated.

2. The Model

The key assumption to be adopted in modeling the North Korean economy after unification is in regard to the production sector. Here it is assumed that there will be two sectors of production in the North Korean region after unification, the "modern" and the "traditional" sectors. The traditional sector is assumed to be a continuation of the current production sector in North Korea. Even though the inflow of capital will be allowed into the traditional sector, technology in this sector is assumed to be the same as before the integration. The modern sector, on the other hand, is assumed to employ the technology of South Korea. In fact, under this model, the distinction between production in the modern sector of the North Korean region, and the extra production in the South Korean region due to the inflow of people from the North, becomes trivial.

The production function of the traditional sector in the North Korean region is assumed to be the simple Cobb-Douglas function:

$$Y_t = A K_t^a (L_t)^{1-a}$$

where K denotes capital, and L denotes labor. The amount of capital in the traditional sector can be written as follows:

$$K_t = (1-\delta) K_{t-1} + I_t^N + I_t^G + I_t^P$$

where δ is the rate of depreciation, I_t^N is the level of investment made by the residents of the North, I_t^G is government investment and I_t^P is the level of private investment made by the residents of the South.

The total amount of investment is determined such that it remains proportionate to government investment. To simulate the ratio of the government fixed capital formation to the total fixed capital formation, South Korean data was examined. In the early 1970s, when the economic level of South Korea was believed to be similar to that of North Korea today, both the average and the marginal ratios were about 7. Furthermore, the ratios did not change much over time and remained about 7 in the 1990s. Under this model, the production amount and factor productivity can be written as a function of government investment. We assume that 1/2 of the government investment is on the traditional sector and 1/2 of the government investment is on the modern sector.

Wages are assumed to be a function of labor productivity. Production in the South Korean region and production in the modern sector of the North Korean region are treated as one. In the simulation, the assumption for the

base case is that 10% of the remaining labor force will annually migrate either to the South Korean region or to the modern sector in the North Korean region. The description of the South Korean economy is here neglected as it is basically an extension of the macro-forecasting model of the Korea Institute of Public Finance (KIPF) labeled KIPF96.

3. Further Assumptions in Relation to the Calculation of Unification Costs

Further assumptions are necessary to calculate unification costs. Before proceeding to make any further assumptions in relation to the calculation of unification costs, however, an elaboration of the concept of “unification costs” is necessary. “Unification cost” is a fairly arbitrary concept, so the concept of “extra fiscal need due to unification” may better serve present purposes. The extra fiscal need due to unification, thus broadly categorized, has two components. One comprises the net costs, occurring once, including payments for foreign debt incurred by the previous North Korea regime, and also the costs associated with the reallocation of military units. Another comprises of ongoing government expenditure. These have been categorized this into 3 parts: (i) public sector maintenance costs; (ii) income subsidies; and (iii) costs of economic development. Assumptions on each will be described below.

(i) **Public sector maintenance:** this includes healthcare, education and general local government expenditures. Since the main component of expenses incurred under these sub-items are salaries, expenses have been calculated as a function of wages. Since it is expected that some people will move to the modern sector, the average rate of increase in the incomes of North Ko-

rean residents will be faster than of that occurring in the traditional sector. Thus the rate of growth under this item has been set at a faster rate than that of the traditional sector.

(ii) Income subsidies: these include the payment of unemployment and retirement benefits. Unemployment benefits and retirement benefits are initially assumed to be 60% and 40% of wages in the traditional sector respectively.

(iii) Costs of economic development: these are necessary to fund the provision of social overhead capital and to encourage investment in areas which are not sufficiently covered by private investment. The size of the fund for economic development cannot be determined *a priori*. This in fact, constitutes a major policy variable affecting all major variables and also the overall size of the fiscal need due to unification.

It is assumed that healthcare costs in the first year is expected to be about 4% of the North's GDP and education costs about 8% of the GDP. General local government expenses are expected to be at about 5% of the GDP. It is also assumed that the rate of growth of these expenses will be about 2% higher than the rate of growth of wages in the traditional sector.

The amount of foreign debt incurred by the previous North Korean regime is about US\$5 billion. In addition, there are some items which cannot be covered by the stable expenses maintaining the public sector as described above. For education, large amount of funds are necessary for the re-training of teachers in the North. This will be mainly carried out by teachers and expert instructors of the South, and this is assumed to take up 10% of normal education costs in the South. It is assumed that such a huge scale re-training program will run for about five years. Furthermore, a large amount of money may be necessary to modernize medical facilities in the North, and this, it is

assumed, will take up about 10% of the normal public expenditure in the South.

4. Extra Government Expenditure Incurred as a Result of Unification

The term "unification costs" is used because it is commonly used. However, the definition of unification costs is not clear. The most common definition of unification costs is "extra government expenditure due to unification". Even then it is still not clear what the term encompasses, whether it comprises revenue from the North Korea region. Thus it is more sensible to refer to unification costs as being "net government transfers to the North Korea region". But since the possibilities of revenue from the North have not yet been discussed, unification costs cannot be accurately known. To get around this problem, temporary use is made of the term, "extra government expenditure due to unification". Unification costs according to the above definition can be simply calculated by subtracting the amount of revenue secured from the North Korean region.

The extra government expenditure due to unification in this model, is by and large, a function of government investment for economic development. Thus the amount of extra government spending was calculated under alternative assumptions regarding government investments. It is important to note that, the extra government expenditure in this study is taken to be smaller than found in other studies and in the actual increase in government expenditure. This is because the concept of 'net amount' has been used for simplification. For example, privatization proceeds in this study were assumed to be zero.

In the extreme scenario that government does not make any investment

(scenario A), extra government expenditure will be about \$78 billion for the 10 year period after unification. This can probably be understood as the minimum possible in the framework that has been used, but it is not very realistic. If we assume that the annual government investment is \$10 billion (scenario B), the total extra government expenditure due to unification is around \$223 billion. If we assume that the annual government investment is \$20 billion (scenario C), the total extra government expenditure due to unification is around \$354 billion. These figures in scenario B and scenario C are generally within the boundary of the estimated costs in previous studies.

Among the several characteristics of the extra government spending due to unification, one thing is particularly worthy of note. Annual extra government spending will reach the bottom in a few years (see Table 2). In scenarios B and C, it reaches the bottom in the second year. After that, it does not change much for the next 2 or 3 years, and then begins to rise. This is be-

〈Table 2〉 Examples of pattern in annual extra government spending

(unit: billion US dollars)

	scenario A	scenario B	scenario C
1	12.951951	24.507507	34.507507
2	7.711789	19.274627	30.223172
3	7.691141	19.614730	31.158646
4	8.097511	19.339846	31.495511
5	8.527243	19.465740	32.209500
6	5.112548	19.796149	33.125586
7	5.354764	21.017600	34.943100
8	5.607286	22.300302	36.841335
9	5.870638	23.654860	38.838066
10	6.145326	25.091259	40.949415

cause wages in the North Korean region will rise fast, thus raising the expenditure in the public sector.

5. Macroeconomic Effects of Unification

Even though the simulations of this study are still under way and have not yet been finalized, the results so far reveal that a moderate size in unification costs do not have significantly negative effects on the macroeconomy. It revealed more optimistic views, finding that the Korean economy will be able to stand the possibility of unification and sustain sound growth, unless unification costs are excessive.

However, it should be noted that the model used is a macro model that does not take into consideration the possible behavioral changes as a result of taxes. For example, if all unification costs are sought to be financed by taxes, marginal tax rates will be substantially high, forcing many corporations abroad, thereby causing significant damages to economic activity. Such possibilities are not fully considered in the model.

IV. Financing Unification Costs and Tax Policy

1. Financing Alternatives

The work of Choi and Park (1997) has many merits as compared to previous studies, but the scope of discussions on alternative methods of financing the costs of unification is limited. The model used in their studies did not properly consider behavioral changes prompted by tax changes, nor did it consider institutional factors involved. This paper attempts to address

alternative methods of financing, placing emphasis on factors not considered in their model.

There are several alternatives of financing the unification costs. The commonly suggested alternatives are:

- (1) saving funds before unification (Unification Funds);
- (2) reducing public spending in other areas;
- (3) privatization proceeds;
- (4) raising tax revenue in the North Korean region;
- (5) introducing a unification tax or raising the rates of existing taxes;
- (6) issuing public bonds in the domestic market; and
- (7) issuing public bonds in the foreign market or borrowing from abroad.

To be more accurate, (4) may not be a method of financing unification costs, as tax revenue raised from the North may ultimately be excluded from unification cost calculations depending on how the term is defined⁶⁾. Similarly, depending on how "unification costs" is defined, (3) may not be a method of financing unification costs. The term "unification costs" is used for convenience, but to be precise, it is the alternative of financing extra government expenditure due to unification that is being referred to here.

Some studies consider the possibility of seniorage or inflation tax, but these have not been included in the present discussion. In addition, while any extra revenue that results from unification is not a direct method of financing, where such extra revenue results, it can be used to finance unification costs. Each alternative has different macroeconomic effects, income redistribution between the residents in the South Korean region and those in

6) From earlier chapters, it can be seen that unification costs and extra government spending due to unification are different concepts, and the extra government spending due to unification, not unification costs, have already been estimated.

the North Korean region, and income distribution among generations. The financing abilities of any one method are limited, hence an optimal policy should comprise a combination of several alternatives.

Financing through privatization proceeds is an easy method of financing extra government expenditure, but it is limited in that it is only capable of raising limited funds. Privatization proceeds cannot exceed a certain portion of assets in the North. Currently, it is estimated that the amount of capital in North Korea is approximately \$80 billion⁷⁾. Thus, even if it is assumed that half of the North Korean capital is sold, privatization proceeds would only amount to \$40 billion, covering only 0.5%–5% of unification costs estimated in the previous studies. Under the present model, all privatization proceeds are assumed to be allocated to compensate North Korean residents to simplify the model. Even if alternative assumptions are adopted, a certain amount of extra expenditure may still be necessary for the compensation of the residents in the North Korean region. As such, the latter assumption is not critical. Furthermore, there are other important aspects to consider in relation to privatization. Thus it is not necessary to emphasize revenue in order to remain faithful to other policy goals that can be achieved through privatization.

Cutting spending in other areas of government expenditure is another method of financing. This method does not contribute much in the way of financing costs as many people believe. Saving public spending, if indeed it is possible, is a desirable goal regardless of unification. However, a sudden cut in spending in other areas may be either very difficult or not desirable. The actual possibility of cutting spending in other areas are more likely to be an

7) This being the estimated figure in 1990 in Cho (1993). The current value of capital is not likely to be much greater than that of 1990 due to a lack of new investments in the intervening years.

outcome of political processes. So in considering the possibility of financing using this method, it is more realistic to only consider expenditure directly related to unification, such as national defense or intelligence. The amount that can be saved on intelligence costs is not clear, and while there may be substantial savings made from expenditure on national defense, it is not as much as some argue. Some have argued that expenditure on defense in a unified Korea can be cut drastically. For example, in Cheong and Cheong (1997), it was argued that 2% of South Korea's GDP would be enough. It is hard to know what the optimal level of defense spending would be for a unified Korea. However, according to Cho (1997), the optimal level of spending on national defense is likely to be about 2.6% of South Korea's GDP, a reduction of about 0.8% of the GDP⁸⁾ from the current level. This amount only covers 4.5%–15% of unification costs. This does not necessarily imply that benefits from unification are insignificant, because the above figures do not include indirect spending through military duties. But the effect of a cut in the military duty does not directly appear as savings in government spending. Furthermore, the extra expenditure necessary for the reallocation and restructuring of the military unit immediately following unification should be considered⁹⁾. Consequently, some studies have even predicted that spending on national defense will increase for a few years after unification.

Whether it is necessary to save funds before unification has been an issue under intense debate. It is asserted here that, the saving of funds before unification is hard to justify. The current generation is one bearing the burden of

8) Current spending on national defense is about 3.4% of the GDP.

9) The costs necessary to clean up some of the facilities of the North Korean military should also be counted. Estimates of this kind of expenditure has not been released for security reasons, and has been temporarily ignored in our estimation of unification costs.

a divided country in the form of high taxes for national defense or military service, without being able to enjoy the benefits of unification. It is thus difficult to justify any extra burden to be imposed on the current generation.

The alternatives of financing unification costs have been examined, however, other than through tax and debt, these methods contribute to only a small portion of unification costs. Even taking a more optimistic view, funds secured by means other than tax and debt, cannot form more than 20% of the unification costs. Thus, a major portion of the costs should be financed either through tax or through public debt. Table 3 below outlines some examples. Scenarios B through C are the scenarios we have considered in the previous chapter. Scenario D can be understood as the upper limit of unification costs that is believed to be sensible.

〈Table 3〉 Financing alternatives and its ability

(unit: billion US dollars)

		scenario B	scenario C	scenario D
extra expenditure (unification costs)		223	354	780
financing	privatization proceeds	40	40	40
	saving in government expenditure	35	35	35 ~60
	tax and debt (tax from the North included)	148	282	655 ~680

2. Tax in the North Korean Region

When the annual extra government spending due to unification is calculated, it can be seen that it will increase after a few years because wages in the

traditional sector of the North Korean region will increase rapidly. As such, the tax revenue in the North Korean region should similarly increase.

In discussing the possibilities of raising tax from the North Korea region, a natural starting point is the feasibility of the North adopting the tax system of South Korea. In the first few years, there will be many difficulties in collecting tax from the North Korea region. Income tax, Value-Added Tax (VAT) and special excise tax (including transportation tax) are the largest sources of tax revenue. However, if the tax system of South Korea is adopted in the North Korea region, a majority of the new taxpayers will be below the income tax exemption level in the first few years. The tax base for special excise tax will not be broad enough, and enforcement of the VAT will not be easy due to difficulties in tax administration. It would be several years before tax administration is well established in North Korea. If many from the South are employed to carry out tax collection activities, collection fees will become very high. In addition, corrupt behavior will make tax collection very difficult. In effect, there is little doubt that a majority of the costs associated with extra government spending due to unification, would be financed by extra taxes in the South Korean region and/or by public debt.

3. Tax Financing and Debt Financing

Tax financing and debt financing have different effects on the macroeconomy, but a more important difference between the two is in the intergenerational redistribution effects. In a world of theory in which Ricardian equivalence holds, the intergenerational effects of the two may be equal, but it is not likely to be true in a real world. Issuing debt in the domestic market and issuing debt in the foreign market also have different effects on the

macroeconomy. The distinction between the two, however, becomes less significant due to globalization of the world capital market.

An optimal policy, in theory, should be able to allocate portions of tax financing and debt financing by considering both the intergenerational redistribution effects and macroeconomic effects. However, in reality, the division of financing funds between tax and debt is likely to be determined by the current generation's willingness to pay through taxes. There is little alternative other than to issue government bonds in relation to the rest. Therefore, the tax structure becomes an important factor, and a careful look at the tax system is necessary.

4. Tax financing and overall tax burden

There are two ways to look at the current tax system to evaluate the possibilities of raising more tax revenue. One way is by looking at the overall tax burden and the other is by looking at the individual tax system.

We first look at the overall tax burden in Korea. It has often been argued in previous studies that raising more tax revenue would not be difficult as the tax burden ratio in Korea is low compared with other OECD countries. Table 4 below is similar to tables frequently used to substantiate such arguments.

<Table 4> Tax Burden Ratio (Tax/GDP ratio)

	Korea	U.S.	Japan	Germany	U.K.
Tax Burden Ratio	18.6 (1991)	20.5 (1990)	22.4 (1990)	25.4 (1991)	30.0 (1991)

Reference: Sohn (1994)

According to the figures in the table, the arguments can more or less be maintained.

According to some of the more accurate studies on optimal tax burden of a particular country, it was suggested that Korea can afford to raise the tax ratio up to 2.6%~4.1%. Sohn (1994) proposed that raising the tax burden ratio by 1.8% point to finance part of the unification costs would be the proper course of action.

Against these arguments, it must be remembered that Korea is a fast changing country. The tax burden ratio has increased about 3% points in the last few years¹⁰⁾. While the optimal tax burden ratio could have risen a little, it is nevertheless a rapid increase, an increase far larger than Sohn (1994) had suggested. Furthermore, the tax burden ratios in other countries have fallen in the past few years, such that previous arguments based on international comparisons are no longer persuasive.

〈Table 5〉 Tax Burden Ratio (Tax Revenue/GDP)

	Korea	U.S.	Japan	Germany	U.K.
Tax Burden Ratio	21.5 (1997)*	20.6 (1994)	17.9 (1994)	24.2 (1994)	27.5 (1994)

*: based on estimations made at the beginning of the year

Source: *Public Finance of Korea (1997)*, based on *OECD Revenue Statistics*

Expenditures need also be examined to see whether indeed the tax burden ratio is low. Even though the tax burden ratio of Korea may be lower than that of some OECD countries such as the U.K., the role of government

10) It may be a little smaller than this, because the actual tax revenue of 1997 will probably be lower than previously estimated.

expenditure is smaller. Tuition fees still have to be paid in the secondary schools of Korea. Furthermore, there are many charges and user fees not captured in the tax burden ratio. Thus, the effective tax burden ratio including quasi-tax will be far greater than what appears in the figures above. Consequently, it is evident that raising a large amount of tax is not as easy as previously believed.

5. Feasibility of Increases in the Various Taxes

For a more thorough discussion on the possibility of raising tax revenue for the financing of unification costs, the desirability or feasibility of individual tax items need to be examined from a more micro perspective. There are very few studies conducted in this area, one of which is that of Sohn (1994). There, he proposed that a unification tax be imposed on the corporate and income taxes, and not on the consumption or property taxes. His proposal, drawn from his study on optimal tax structure in Sohn (1993), is persuasive in that it is based on empirical estimates, compiled from current data. While his suggestion does not consider the possible changes resulting from unification, the micro structure and issues relating to the individual tax system, it is in fact more realistic.

In evaluating the various taxes to see where further taxes could be raised, there needs to be some fixed criteria. First, it is necessary to examine whether an increase in the tax is desirable, regardless of unification. This involves a consideration of both equity and efficiency concerns, and also of the corrective function of taxes in relation to other problems present in society¹¹⁾.

11) For further discussion, see KIPF (1997).

Secondly, it is necessary to consider the unique features related to unification specifically. Unification causes a reallocation of resources and redistribution of income. In designing a tax reform or an introduction of a unification tax, the general principle should be that those already disadvantaged from the unification should not be further disadvantaged by any extra tax where possible.

Within the simple framework of a closed economy in which there are only two factors of production (capital and labor), the effects of unification on the South Korean economy are such that there will be a rise in capital income and a fall in labor income. It should be noted however, that such a framework may be inadequate for the purposes of analysis, as the capital market is globalized and there are in fact, several factors of production. Unlike the results of the prediction made from the simple framework of the closed economy, the macro simulation from the model presented in the previous chapter shows that interest rates will not necessarily rise after unification. Those who gain from unification are more likely to be entrepreneurs rather than owners of capital. Since the highly skilled labor force and labor inflows from the North Korean region are not substitutes, it will only be the unskilled workers who lose from the unification. It is evident thus, that the income inequality is likely to get worse as a result of unification, and consequently, the regressive tax is not a desirable option for the financing of unification costs.

Based on these criteria, the possibilities of increases in each tax will be discussed. The Korean tax system is quite complicated and there are many categories of tax items. The scope of this paper is too limited to adequately provide a discussion on each of the tax items, however, the major tax items and the major tax changes will be considered. Some of these are grouped together for convenience. In discussing the possibilities for raising more tax reve-

nue, national taxes and local taxes are not distinguished. That is, it is assumed that even if local tax rates can be raised, any resulting revenue can be used to finance unification costs by implementing a simple change in the system, allowing for the shared allocation of funds between the central and local governments.

(a) Income Tax

There are two major ways of increasing income tax revenue: enlarging the tax base and raising the tax rate. Broadening the tax base can be applied, again in two ways: reducing the deductions and including currently tax-exempt items as taxable income. Aside from concerns raised by unification, the inclusion of currently tax-free items as taxable income is desirable. Such a proposal, however, has not yet been officially endorsed. Hence its immediate implementation post-unification is highly doubtful. It may be several years before the wage structure can be changed and the income tax base adjusted. Thus, this policy cannot be implemented suddenly to finance unification costs. The scope for reducing deductions on income tax is very limited. Reducing the deductions applicable to wage income is one proposal, but there are many who oppose this because it enlarges the gap of the effective tax burdens between wage incomes and business incomes. Reducing basic deductions is not desirable as it has the potential to penalize low skilled workers who are already disadvantaged as a result of unification.

Raising income tax rates does not seem to be a desirable option in any case. Currently, the nominal marginal income tax rate is already high, the problem being that effective tax rates on some types of income are low. Raising the nominal tax rates without effecting other changes, will enlarge the gap in tax rates between the different sources of income, thus generating

more horizontal inequality. Unless tax administration guarantees substantially high tax rates for all sources of income, an increase in only the income tax rate may be faced with political opposition, especially due to the inequality in the tax burdens between wage incomes and business incomes.

There is scope then, for increased revenue from income tax. However, because of the possible adverse effects, it is unlikely that such a policy will be adopted too readily on unification.

(b) Corporate Tax

It is more likely that many corporations will benefit from unification due to special demands arising in the market following unification. However, an increase in the corporate income tax will affect all corporations including those unaffected by unification. Due to the effects of globalization, high tax rates may drive corporations abroad, thus, the scope for raising the rate of the corporate income tax is limited. This is especially not a desirable policy in the light of an increasing labor force supplied by the influx of North Korean migrants to the South. Raising the corporate tax rate has also the added effect of curbing investment booms and causing either higher unemployment or lower economic growth in the North Korea region.

(c) Value-Added Tax (VAT)

There are two ways of raising more revenue through the VAT. One way is to raise the VAT rate, and the other is by reducing VAT avoidance. Since the latter policy is more difficult to implement especially in a short period of time, it is less likely to be utilized in the financing of unification costs. This means that, if more revenue is sought through the VAT, it will be done by raising the rate. However, since the Korean VAT has a flat rate, without ex-

emption on necessities such as processed foods, the VAT burden is regressive. And again, because low skilled workers are likely to be disadvantaged by unification, raising VAT rates would not be a desirable policy decision.

(d) Excise Taxes

The tax burden on some special excises, such as sugar and electricity equipment, are regressive. Even though it is possible to implement a policy raising more tax revenue from these, it would be hard to justify on grounds similar to those of raising the VAT rate.

Raising the tax rate on luxury goods are relatively easy to justify, and similarly, raising the tax rate on liquor and cigarettes are also relatively easy to justify.

(e) Energy Tax

Raising taxes on gasoline can be justified because they are progressive, and also because of its externality effects. Increasing taxes on other energy sources are recommended on the grounds of environmental protection. Raising the tax rate on energy are often opposed on the grounds of the possible weakening of the industry's international competitiveness. But according to the discussions in Chapter 3, the Korean currency will depreciate in the first two years after unification, so that securing taxes on energy as a source of income is less likely to be met with opposition.

From the fourth year however, the Korean currency will begin to appreciate again. So if the environmental aspects supporting an energy tax are ignored, these taxes will serve as a ready source of revenue in the first three years of unification. Taxation on energy, however, give rise to many complications because of their correlation to global warming problems. Thus, it is

difficult to draw any definitive conclusions here. For the moment however, it should be noted that energy taxation may have to be differentiated between the South Korean region and the North Korean region, in order to maintain a more stable economic growth in the North.

(f) Property Tax and Land Tax

In the study of optimal tax structure by Sohn (1994), it was argued that taxes on property and land are already excessive. However, considering the unique aspects of Korea, it has been often proposed that an increase in the taxes on land and property is still desirable. Since land and property are immobile factors, raising tax rates do not cause major distortions (at least in the short run). It is also possible to justify an increase in land and property tax rates in relation to unification, although the reasoning may be weak. Land and property taxes are not regressive, while some other alternatives, such as the VAT are regressive. Considering the philosophical background of the land and property tax, that they are in fact payments to the state for the securing of land and property, surely the increase in security gained through unification would justify any increases in the tax burden. Justifications for an increase in the taxes on land and property can only, however, be maintained in part. There are also opposing views. Hence, the feasibility of financing unification costs by increasing tax on land and property is not clear.

This paper has not been able to adequately address all the complexities of the Korean tax system. Instead, it has merely sought to present a rough sketch in order to consider alternative tax policies for financing unification costs. The possibility of raising taxes through the imposition of a unification tax still requires further discussion.

However, our brief discussion has shown, in the face of sudden unifica-

tion, it is most probable that the largest source of extra tax revenue will come from indirect taxes. Given that the costs of financing the tax are not large, these indirect taxes will most likely comprise of special excise taxes and the energy tax. However, if the costs of financing the tax are large, an increase in the VAT may be resorted to. The extra tax burden resulting from an increase in the VAT rate however, is regressive and tends to penalize those who are already disadvantaged by unification.

V. Conclusion

Unification is the hope of all Koreans, especially a costless unification. However, the reality is not only that unification costs, but that it costs a lot, as found in previous studies. Attempts to estimate unification costs is futile as there exists no national consensus on policy directions following unification. The ongoing study by Choi and Park (1997), however, presents an optimistic view in the ability of Korea's macroeconomy to overcome difficulties arising from unification. In spite of the burden of substantially large unification costs, it is expected that the Korean economy will be capable of sustaining continuous economic growth.

Discussions on Korea's ability to raise the necessary finances to support substantial unification costs, are however, less optimistic. Even though there is further scope for increases in taxes, the extra tax revenue is likely to be raised from consumption taxes. If the amount of tax financing is large, it is likely that the rate of the VAT will be increased. In that case, the extra burden will be regressive, imposing a greater burden on low skilled workers who would already be disadvantaged by the unification. Further, the tax burden ratio is also likely to increase. In the face of a sudden unification, more

realistic approaches need to be taken which do not generate insurmountable unification costs. If, however, there is more time to prepare for unification, implementation of income tax policies and tax administration must be better conducted in order to finance some of the unification costs by means of the income tax. Further, it is necessary to find ways of saving more on government spending by raising the value of public expenditure.

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〈國文要約〉

韓國의 統一費用 調達方案

1. 序 論

統一費用에 대해서는 기존의 많은 연구가 있지만, 추정치가 연구자에 따라 상당한 편차를 보이고 있다. 또한 財源調達에 대한 논의는 상대적으로 빈약하며, 통일비용의 규모나 재원조달 방안이 南韓經濟에 미치는 영향에 대해서는 거의 논의되지 않았다. 본 연구는 기존의 연구에서 상대적으로 논의가 빈약하였던 부분에 중점을 둔다. 제 II 장에서는 統一費用에 대해 간단히 논의하고, 제 III 장에서는 통일비용과 거시경제 효과 분석을 위한 박종규·최준욱(1997)의 研究結果를 요약한다. 제 IV 장에서는 모형을 통한 고찰에서 결여되는 측면을 보기 위해, 좀더 제도적인 측면에서 財源調達 方案에 대해 논의한다. 제 V 장에서는 결론을 제시한다.

2. 獨逸과 韓國의 統一費用

독일의 경우 統一費用이 예상보다 크게 나타났고, 이것이 독일경제에 상당한 부담을 주었다. 독일과 비교할 때 여러 면에서 여건이 열악한 우리나라가 통일 이후 독일과 유사한 政策을 취한다면 통일비용을 과중하게 만들어 심각한 어려움을 겪을 수 있다. 따라서 통일 이후의 정책은 통일비용이 과다하게 소요되지 않으면서, 북한지역의 經濟成長이 빨리 이루어질 수 있는 방향에서 접근해야 한다.

통일비용은 정책에 따라 달라질 수 있기 때문에, 國民的 合意가 이루어지지 않은 상태에서 통일비용의 절대액을 추정하는 것은 별로 의미가 없다. 그러나 통일비용에 대한 적절한 연구는 통일 이후의 정책에 대한 국민적인 의견수렴을 위해서 필요하다. 다

만 기존의 연구보다 좀더 伸縮性 있는 模型을 구성하여 거시경제 효과를 분석하는 일이 필요하며, 재원조달 측면에 대해서도 좀더 많은 논의가 필요하다.

3. 統一費用과 巨視經濟

통일비용 추정을 위해 통일 이후의 기본적인 경제정책에 대해 전면적인 가격 자유화, 실질환율을 기준으로 한 화폐통합, 바우처제도를 이용한 점진적 민영화와 소득보전, 북한주민에 대한 기본적인 사회보장 제공 및 남북한 사회보장제도의 분리 운영을 가정한다. 그리고 인구 이동에 대한 법적 자유가 보장되는 것으로 전제하고, 통일 이후 북한지역의 생산은 전통부문과 비전통부문에 나누어 분석하였다.

통일에 따른 추가적 연간 財政支出은 통일 후 1~2년이 지나면 감소하지만, 4~5년이 지나면 다시 증가한다. 이는 북한지역에서의 임금이 빠른 속도로 인상되기 때문이다. 統一費用은 통일에 따른 추가적 재정지출에서 북한지역으로부터의 財政收入을 차감하여 계산할 수 있다. 통일비용이 과다해지지 않게 하기 위해서 통일 수년 후부터는 북한지역으로부터도 상당한 租稅收入을 확보하여야 할 필요성이 있다.

통일비용이 상당히 크게 나타날 수 있음에도 불구하고, 거시경제 모형을 통하여 고찰한 결과는 우리 경제가 이를 비교적 잘 극복하고 안정적인 성장을 지속할 수 있는 것으로 나타났다.

4. 財源調達 方案과 租稅政策

재원조달 방안으로 주로 논의되는 것 중 民營化 收入金은 그 액수가 制限의일 수밖에 없으며, 대규모 통일기금을 조성하는 것은 당위성을 찾기 힘들다. 또한 다른 분야에서 支出節減을 통해서 엄청난 규모의 통일비용을 충당하는 것도 한계가 있다. 따라서 통일비용 중 많은 부분은 增稅나 國債의 發行을 통해서 조달될 수밖에 없다.

增稅를 통한 재원조달과 國債發行을 통한 재원조달은 거시경제적인 측면에서도 차이를 보이지만, 더 중요한 것은 양자간의 世代間 負擔의 差異이다. 실제에 있어서는

현세대의 부담의사에 따라 증세를 통한 재원조달액이 결정되고, 나머지 부분에 대해서는 국채를 발행하여 재원을 조달하는 식이 될 것이다. 따라서 재원조달에 대해 고찰할 때에는 현세대의 부담의사에 영향을 미칠 수 있는 租稅負擔率이나 個別 租稅構造의 특성이 중요한 고려사항이 된다.

기존의 연구에서는 우리나라의 조세부담률이 다른 나라들에 비해서 낮다는 점을 근거로 하여 증세를 통한 財源調達에 대해서 비교적 긍정적으로 평가하였다. 그러나 최근 수년간 우리나라의 租稅負擔率이 빠른 속도로 증가하였고 우리나라의 공공지출 범위가 매우 제한되어 있다는 점을 고려할 때, 이에 대해서는 재고의 여지가 있다.

통일 이후의 조세정책에서는 일반적인 측면과 더불어 통일로 인한 변화가 고려되는 것이 바람직하다. 통일로 인해서 이득을 보게 되는 분야에 대한 증세가 바람직하기 때문에, 事業所得이나 法人所得에 대한 부담을 늘리는 방안을 생각할 수 있다. 그러나 현행의 所得稅 負擔의 문제점을 고려할 때, 소득세율 인상은 현실적으로 어려울 것이다. 控除의 縮小를 통해 소득세 부담을 가중시키는 것은 통일로 인해 손실을 보게 되는 계층의 稅負擔을 증가시킬 수 있기 때문에 바람직하지 않다. 경제의 개방으로 인해 法人稅率의 引上도 어렵다. 따라서 증세를 통한 통일비용 재원조달의 많은 부분이 間接稅를 통해서 이루어질 가능성이 크다. 증세를 통한 재원조달의 규모가 작은 경우에는 일부 特消稅, 에너지원에 대한 課稅 등이 인상될 가능성이 크지만, 재원조달의 규모가 큰 경우에는 이와 더불어 附加價値稅率이 인상될 것으로 보인다.

5. 結 論

거시경제적 측면에서는 통일비용의 규모가 상당함에도 불구하고 우리 경제가 이를 극복하고 安定的인 成長을 지속할 수 있을 것이라는 낙관적인 결과를 얻었다. 그러나 재원조달 측면에서는 반드시 낙관적이지만은 않은 것으로 보인다. 통일비용의 규모가 큰 경우에는 租稅負擔率이 상당히 높아지거나 財政赤字의 規模가 커질 것이다. 따라서 통일 이후에는 과도한 비용을 초래하지 않는 현실적 정책이 필요하며, 통일 이전부터 公共支出의 效率性を 높이려는 노력을 기울여야 할 것이다. 또한 증세를 통하여 조

달할 재원의 규모가 클 경우 추가적인 세 부담이 逆進的이 되지 않도록 所得稅를 增稅 하는 것이 필요하다. 이를 위해서는 통일 이전부터 事業所得에 대한 課標陽性化率 提高 등을 통한 소득세 부담을 정상화해야 할 것이다.

〈第 2 主題 討論〉

❖ Diana Brand(獨逸 Ifo研究所 研究委員)

Dr. Choi has given an excellent explanation of the financing alternatives of Korean unification costs. Assessing unification costs by adopting different policy assumptions is undoubtedly a superior approach to previous studies in which cost estimates had been based on ad-hoc assumptions only.

The model which is used to calculate anticipated unification costs is in my view thoroughly constructed. The assumptions made with regard to unification and with regard to the post-unification policies appear convincing. Of course, much will depend upon whether unification will occur in the form of a big bang as in Germany, or in form of a gradual process. The common argument that "the faster unification comes, the smaller its costs will be" is valid only when one presumes a sudden collapse of North Korea's system, either through internal crisis or through external military attack. Even though the majority of Korean experts assess the chances for such a sudden collapse relatively high, one should also keep in mind the possibility of a gradual and peaceful unification process, and this would certainly be the most economical method of unification.

Of course, as a German, I cannot as well as yourself assess the probabilities of different methods or ways of Korean unification. However, what I am able to do is to evaluate from a German perspective the assumptions made in the paper with regard to post-unification policies. I find the assumptions made by Dr. Choi well justified, especially because major mistakes which Germany had made during unification are explicitly avoided: first, currency integration is based on the market exchange rate, second, the determination

of property rights within the privatization process is clear and third, wages are assumed to be a function of labour productivity. I find these assumptions very important, particularly in view of the high burden of unification costs for the Korean population. As Dr. Choi has explained, this burden can be assumed to be twice as high as in Germany, and therefore mistakes which Germany had made during unification should in any case be avoided in order to reduce this burden as much as possible.

However, what I could not find in the model description of Dr. Choi are assumptions on the expected growth rates of the North and South Korean economies after unification. In my view, the size of required government spending critically depends on economic growth. Therefore, I had difficulties to understand how Dr. Choi came to the conclusion that "the Korean economy will be able to stand the possibility of unification and sustain sound growth". This optimistic result should in my view be better explained in the paper.

On the other hand, the rather pessimistic result that there is not much scope for tax increases or that the effects herefrom would be regressive, was very well explained by Dr. Choi. As the financing abilities of tax increases are limited, it is plausible that a major portion of the costs will have to be financed through alternative means. It is to be expected that the Korean government will have to considerably increase its public debt, in a similar way as Germany had done.

I do not, however, support the view that a unification fund should be excluded in the present discussion. In my view, Korea has the advantage that it can learn from the Germany case and prepare the economy for bearing unification costs even now, in a way that the generation living in the unification period would not have to bear the whole burden. As Dr. Choi has argued, a

unification fund would not be fair for the present generation who cannot participate in the benefits from unification. But one should consider that after unification there will not be any immediate or visible economic benefits for the South Korean population. It would therefore not be fair either to put the whole financial burden of unification on the generation living in the unification period.

Let me come back to a detail of the model, which I find important for the result on unification costs. On page 14 it is explained that the production amount and factor productivity are written as a function of government investment, and that half of the government investment is in the traditional sector and the other half in the modern sector. There are two questions which I have in this respect: First, why shall as much as half of government investment be concentrated on the traditional sector, which operates with the old-fashioned North Korean production equipment? And second, how is the relatively low factor productivity in this sector integrated in the model specification?

I find a realistic modelling of the factor productivity very important, because the productivity of the capital which the South Korean government will invest in North Korea not only determines the speed with which the North Korean economy will catch-up, but also the unification costs necessary in later years.

Let me quickly explain the productivity issue on the background of German experience. Still today, seven years after unification, the technological gap between East and Western Germany, and therefore the gap in factor productivity, is an important problem which is responsible for the slow catch-up process of Eastern Germany. In the first three years after unification the productivity gap could be reduced considerably. But after productivity(de-

defined as nominal GDP per actively employed worker) In eastern Germany had reached 57% of the West German level in 1996. the convergence process has practically come to an end. The main problem is that the high capital investment in Eastern Germany has not induced correspondingly high growth rates of GDP(the GDP growth rate expected for 1997 in Eastern Germany is only 2.26%, which is not much higher than the 2% of Western Germany). The main reason are too high labour costs per unit produced and the relatively low capital productivity in Eastern Germany. The unit labour costs in the East German manufacturing sector are 25% higher than in the Western German manufacturing sector. The low capital productivity is a result of several factors, which are above all the continuous technological gap with regard to Western Germany, the large number of inefficiently used industrial sites and the misallocation of investment capital during the unification process.

Part of these problems will hopefully be avoided in Korean unification, particularly if labour costs are not allowed to rise at higher rates than the productivity level. But equal importance should be given to channeling the investment capital into productive production sites equipped with the most modern technology.

❖ 孫光洛(嶺南大 教授)

최준욱 박사의 논문은 統一費用 推定과 費用調達問題를 함께 다루고 있으나 본인은 재원조달문제에 관하여 중점적으로 지적하고자 한다.

統一費用 調達方法 중에서 특히 財政支出 削減과 民營化에 따른 收入金으로 統一費用을 조달하는 방안은 무리가 있다는 최준욱 박사의 주장에 동감하며 租稅와 國公債에 의한 調達方法은 바람직하다고 생각한다.

당장에 통일이 되었을 경우 조세로만 통일비용을 조달한다면 租稅負擔率이 높아지

기 때문에 국공채로 어느 정도 조달을 하고 그 나머지를 조세로 징수하는 것이 바람직하다고 생각한다. 이러한 방법을 사용하기 전에 먼저 우리나라가 부담할 수 있는 國公債의 限界가 얼마만큼인지를 측정하는 작업이 선행되어야 한다.

위의 논문에서는 통일 이전에 그 재원을 마련하는 것이 현재대와 미래세대의 부담의 衡平性을 고려한다면 바람직하지 않다고 하지만, 통일의 시기를 예상하기 어렵고 두 세대의 구분이 불분명하므로 세대간의 부담을 굳이 구분할 필요는 없다고 보여진다. 따라서 통일재원의 조달은 積立式이 바람직하며, 이는 재정학에서 말하는 'Tax smoothing effect'를 유발할 수 있다는 장점이 있다. 통일 이전에는 증세하지 않고 통일 이후에 증세를 통해 조달하려 한다면 갑자기 세율이 높아져 超過負擔이 커진다. 따라서 이러한 문제점들을 최소화하기 위해서는 적립식을 채택하여야 한다. 이는 통일 이후에 갑작스러운 적자재정에 대비할 수 있는 좋은 수단이라고 생각한다.

위의 논문에서는 통일재원의 조달기간을 10년으로 설정하고 있는데, 그 이유가 무엇인가에 대하여 의문스럽다. 최준욱 박사는 현재의 租稅負擔率이 과거 2~3년 동안 2~3% 정도 증가하였으므로 조세부담률을 더 증가시키는 것은 바람직하지 않다고 하였다. 하지만, 적정 조세부담률은 소득에 대해 탄력적으로 나타나기 때문에 租稅負擔率을 2~3% 정도는 더 증가시켜도 무관하다고 생각한다.

조세구성에서 특별소비세, 에너지세, 부가가치세와 같은 間接稅를 통해 재원을 마련한다면 衡平性에 문제가 있다. 최근에 우리나라에서는 전체 세수 중 간접세에 대한 비중이 증가하는 경향이 나타나고 있다. 간접세 비중을 증가시키면 형평성에 더 큰 문제가 야기될 것이다.

통일을 우리나라 조세구조의 전면적인 개편의 기회로 활용하여야 한다. 우리나라의 조세구조 중 직접세에 많은 문제점이 있다고 생각한다. 그러므로 직접세의 비과세, 면세 등 각종 租稅減免의 體系를 획기적으로 바꿀 수 있는 기회로 활용하는 것이 바람직하다.

우리나라의 소득세는 세율은 비교적 낮고 면세점은 상당히 높은 구조이다. 그러므로 세율은 유지하면서 면세점을 낮추어 어느 정도의 효율성을 유지하는 것이 전반적으로 衡平性和 效率을 調和시킬 수 있는 방법이라고 생각한다.

Session III

Investment and Tax Policy in Unified Germany

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of Tax Revenues
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I . Introduction

More than seven years after the German Reunification, eastern Germany continues to struggle with the social and economic burdens of its shock-therapeutic 'cold turkey' switch from a central planning economy to a market-oriented one. The unification made it very obvious that the economy of the ex-German Democratic Republic (DDR) was underdeveloped and inefficient in its management of its economic human and non-human resources. In 1993, on the basis of the GDP, the labor productivity gap between the 'old' and 'new' State was still about 60 percent.

In eastern Germany, the necessary reallocation processes in the 'new' States resulted in high unemployment rates¹⁾, substantial devaluation of real capital, and in decreases of the gross domestic product by more than 30 percent within a few months. As a consequence, a combination of 'bread' and 'whip' policies were initiated by the German federal government to help the 'new' States' firms through their struggle for competitiveness on national and international markets and in order to alleviate the massive frictions of the transition process. The 'cold turkey' action of privatization of the firms in the 'new' States might be seen as the hardest hit by the 'whip' actions. The 'bread' policies included massive transfer payments from the 'old' to the 'new' States as measures to soften not only social hardness, but to improve eastern Germany's infrastructure. The following table presents some estimates of the transfer payments. By far the highest share of the total amount of 1,224 billion Deutschmark stems from the Federal government, and most

1) In April 1991, in the former GDR almost 2 million people were either unemployed or worked less than the regular working hours.

of these transfer payments were given to private households²⁾.

〈Table 1〉 Transfers to 'new' Bundesländer from 1991 to 1995

(unit: billion DM)

	1991	1992	1993	1994	1995	1996	Sum
Gross Transfers to the 'New' States	152.4	280.5	229.4	199.7	179.3	182.2	1,224
Federal Government	62.6	97.3	109.2	111.0	151.3
to private households	27.2	32.9	52.6	44.6	44.5	46.3	248.1
to public institutions	9.6	6.6	7.6	7.3	32.6	32.4	96.1
to firms	19.7	22.9	20.2	25.3	25.0	21.6	134.7
'old' Bundesländer	12.2	13.6	23.4	27.3	20.8
others (e.g. European Union, Treuhandanstalt etc.)	77.6	169.6	96.8	61.4	8.1

In this paper special attention is given towards two aspects: first, towards the development of tax revenue, and towards tax policies in general that were taken in Germany since unification and because of unification³⁾. Second, special attention is given towards the development of private investment in unified Germany. Somehow as a consequence of both aspects, a simple dynamic model is given to sketch some taxation effects on investment behavior.

2) Boss, Alfred und Astrid Rosenbaum, *Öffentliche Transferleistungen zur Finanzierung der Deutschen Einheit*. Eine Bestandsaufnahme, Kiel Discussion Papers No. 269, Kiel 1996.

3) Comparing the two sides of government budgets with respect to unification policies, public expenditure programs are more important than the revenue side policies.

II. Recent Tax Policies and the Development of Tax Revenues

1. Recent Tax Policies

Since there exists a detailed survey of all kinds of budget policy measures in Germany for the first half of this decade⁴⁾, only a sketchy list of (recent) new tax laws are presented here.

- February 1992: Increase of the value added tax ('Mehrwertsteuer') by 1 percent point (from 14 to 15 percent); slight decreases of two business taxes ('Gewerbeertragsteuer' and 'Betriebliche Vermögensteuer').
- November 1992: Increase of the tax free amount of capital income; banks are obliged to withhold 30 or 35 percent of interest payments.
- June 1993: Together with the reform of the intergovernmental fiscal relations (i. e. 'Länderfinanzausgleich') to increase the (tax) revenues for the 'new' States, some tax rates were increased. The so-called 'Solidaritätszuschlag' of 7.5 percent on the tax bases for the personal income tax (Einkommensteuer') and for the corporate income tax ('Körperschaftsteuer') was re-introduced. The insurance tax was raised to 15 percent, in two steps (second one became relevant in 1995).
- September 1993: A special program, named: 'Standortsicherungsgesetz', was released to improve Germany's business location. The rate of the corporate income tax ('Körperschaftsteuer') was lowered (45 percent or 30 percent for retained profits). The income tax rate for business income was limited to 47 percent. The special tax program for the 'new' States was extended until the end of 1995 or 1996, respectively.

4) Grosseckttler, Heinz, Die ersten fünf Jahre. Ein Rückblick auf die gesamtdeutsche Finanzpolitik der Jahre 1990 bis 1995, in: Finanzarchiv, vol. 53 (1996), pp. 194-303.

- December 1993: The gasoline tax was increased by either 0.07 or 0.16 Deutschmark per liter depending on the kind of gasoline. Some (more or less technical) tax changes.
- October 1995: A new income tax tariff was released. The investment tax credit program for the 'new' States was extended until the end of 1998.
- December 1996: From 1997 there was to be no property tax ('Vermögensteuer'); increases of the inheritance tax and of the so-called 'Grunderwerbsteuer'.
- December 1996: With the "Gesetz zur Fortsetzung der wirtschaftlichen Förderung in den neuen Ländern" the investment tax credit program was extended until 2004 and concentrated more on business investments rather than on housing.
- The tax reform proposal for lower income tax rates and corporate income tax rates was rejected by the 'Bundesrat'.
- August 1997: There is to be no 'Gewerbesteuer' after 1998; this tax will still not be raised in the 'new' States in 1997.

III. The Recent Development of Tax Revenue

In the first two years after the unification, the general tax revenue was high because of the induced boom, and because of tax rate increases. In the years 1993–1996 the tax growth rate of 2.25 percent lagged behind the growth rate of the nominal gross domestic product which was 3.5 percent then. The slow increase of the general tax revenue, was mainly the result of the low revenue from direct taxes.

At the same time the share of social security payments increased such that the sum of the two components was higher in 1996 than ever before. Howev-

〈Table 2〉 The Development of Tax Revenues in Germany, selected years.

billion Deutschmark									
time	total tax revenue	direct taxes	tax on wage income	"veranlagte Einkommensteuer"	corporate income tax	indirect taxes	value added tax	other sales taxes	"Grundsteuer + Grunderwerbsteuer"
1970	154.2	67.8	35.1	16.0	8.7	86.5	38.1	31.5	14.8
1975	242.1	117.3	71.2	28.0	10.1	124.8	54.1	43.5	25.0
1980	365.0	179.6	111.6	36.8	21.3	185.3	93.4	55.1	33.8
1985	437.2	220.1	147.6	28.6	31.8	217.2	109.8	64.8	38.1
1990	549.7	264.4	177.6	36.5	30.1	285.3	147.6	84.1	47.5
1991	661.9	318.7	214.2	41.5	31.7	343.3	179.7	107.0	51.2
1992	731.7	354.1	247.3	41.5	31.2	377.6	197.7	119.1	55.6
1993	749.1	351.7	258.0	33.2	27.8	397.4	216.3	120.8	53.9
1994	786.2	354.7	266.5	25.5	19.6	431.4	235.7	131.5	56.8
1995	814.2	382.2	282.7	14.0	18.1	432.0	234.6	135.1	55.8
1996	800.0	357.0	251.3	11.6	29.5	443.0	237.2	138.6	60.5
percentage of total tax revenue									
1970	100	43.9	22.7	10.4	5.7	56.1	24.7	20.4	9.6
1975	100	48.5	29.4	11.6	4.2	51.5	22.3	18.0	10.3
1980	100	49.2	30.6	10.1	5.8	50.8	25.6	15.1	9.3
1985	100	50.3	33.8	6.5	7.3	49.7	25.1	14.8	8.7
1990	100	48.1	32.3	6.6	5.5	51.9	26.8	15.3	8.6
1991	100	48.1	32.4	6.3	4.8	51.9	27.1	16.2	7.7
1992	100	48.4	33.8	5.7	4.3	51.6	27.0	16.3	7.6
1993	100	47.0	34.4	4.4	3.7	53.0	28.9	16.1	7.2
1994	100	45.1	33.9	3.2	2.5	54.9	30.0	16.7	7.2
1995	100	46.9	34.7	1.7	2.2	53.1	28.8	16.6	6.9

er, an international comparison shows that the share of these two components with respect to GDP is (much) higher in countries like Sweden, Denmark, Belgium, Austria, Netherlands than in Germany.

III. Recent Investment Behavior in Germany

1. Aspects of Recent Investment Development in Germany

For the time period 1991–1994 (latest year with official statistical data) there is a decrease of the real value of total investment in Germany. Still official data show that this new trend became worse in the last 2 years. Even different components (e. g. buildings, fixed investments) of total investment show slightly different trends, even with respect to single States, the overall negative development of investment is a serious problem for Germany.

While the behavior in some sectors of some 'old' States show dramatic negative trends (in some 'old' States, the level of investment decreased by 30 or more percent from 1990 to 1994), the investment behavior in the 'new' States was somehow better. With respect to almost all investment components the ratio of investment in the 'new' States to the ones in the 'old' States improved steadily for 1991 until 1994 (and more recently). Detailed studies have to show whether this is a 'crowding effect' or whether it is the positive result of policy programs.

2. Direct Foreign Investment in Germany

Direct foreign investment in Germany are seen as a proxy variable for the quality of Germany as a good business location. Since the mid-eighties, Ger-

man direct investment abroad have increased continuously. This fact is in accordance with the trend of worldwide globalization; as with foreign companies, German ones expand their markets by producing abroad.

On the other side, for the same time period, direct foreign investment in Germany shows a cyclical behavior: after an increase in the late eighties and early nineties, direct foreign investments decreased again. The negative net balance effect are interpreted such that Germany has become a bad business location. High wages, the recent evaluation of the Deutschmark, the rigidities of regulations especially on the labor market, and the burdens of taxes and social security payments are listed as causes for this new development⁵⁾.

In a still ongoing empirical study, an econometric analysis was undertaken to test the hypotheses that German direct investment abroad (di) are determined by real exports of goods and services (ex) and by the real currency value of the Deutschmark (vd)⁶⁾:

$$(i) \quad di = \beta_0 + \beta_1 \cdot ex + \beta_2 \cdot vd + \beta_3 \cdot dummy + \mu$$

$\begin{matrix} >0 & & >0 & & >0 \end{matrix}$

where the *dummy* variable is supposed take account of the recent 'border free' market in Europe⁷⁾. For stationarity reasons of the variables, the first differences of equation(i) was estimated with quarterly data for Jan 1975 until Jan 1997:

$$(ii) \quad \Delta di = \alpha_0 \cdot ex + \alpha_1 \cdot \Delta vd + \alpha_2 \cdot [di_{-1} - (\alpha_3 + \alpha_4 \cdot ex_{-1} + \alpha_5 \cdot vd + \alpha_6 \cdot dummy_1)]$$

5) For a detailed discussion of these and more causes see: Klodt, H. and R. Maurer, *Internationale Direktinvestitionen. Determinanten und Konsequenzen für den Standort Deutschland*, Kieler Diskussionsbeiträge 284, 1996.

6) For a description of the variable 'real currency value of the Deutschmark' see: *Deutsche Bundesbank, Aktualisierung der Außenwertberechnung für die D-Mark und fremde Währungen*, in: Monatsbericht, April 1989, pp. 44-52.

7) It is '1' for the 'beginning period' of the European market Jan 1998-April 1992 and takes the value '0' for the rest of the estimation period.

The estimation of this error correction equation results suggest that with an increase of real exports by 1 percent, Germany's direct investment abroad increases by 2 percent. A currency evaluation of the Deutschmark by 1 percent increases the dependent variable by 2.5 percent. As expected, the coefficient of the *dummy* is significant and positive. A high negative coefficient (-0.8) suggests a fast adjustment process. A relatively low $\overline{R^2}$ (0.38) serves as a reminder that there might be more important influences not taken into account in the estimation equation.

IV. Tax Effects on Investment Behavior

In this chapter some theoretically based calculations are presented to demonstrate possible tax effects on investment behavior. First, a dynamic neoclassical model of the firm is used to derive an investment demand function. Then, it is shown how the different tax programs for the 'new' States work in this model.

1. The Model

In the following so-called q -model⁸⁾ of investment behavior, tax and announcement effects of temporary policy measures are incorporated. The partial equilibrium character of the approach seems justified because the main

8) The model is based on *Funke, Michael and Dirk Willenbockel, Ankündigungseffekte von antizipierten Änderungen der Unternehmensbesteuerung auf die Investitionstätigkeit*, in: *Jahrbücher für Nationalökonomie und Statistik*, vol. 207 (1990), pp. 539-56; *Funke, Michael and Dirk Willenbockel, Steuerliche Investitionsförderung in den fünf neuen Bundesländern. Maßnahmen und Auswirkungen*, in: *Finanzarchiv*, N. F. 54 (1996), S. 457-480; *Thiemann, K., Aufbau von Kapitalstock und Vermögen in Ostdeutschland*, Tübingen 1996.

concern with the analysis is the comparison of the three tax measures the German government chose to accelerate the transition process within the 'new' States. It is assumed that the representative firm maximizes the shareholder value v for an infinite time period, and that the firm finances additional investments with retained profits⁹⁾. Net (real) profit (π) is defined as:

$$(1) \pi = [1 - \tau(t)] \cdot \{f[k(t)]\} + \tau \cdot d(t) - (1 - z) \cdot c[i/k] \cdot i(t)$$

where τ is the tax rate on retained profits¹⁰⁾; $f(k)$ is the neoclassical production function (with $f_k > 0$ and $f_{kk} < 0$); $(1 - z) \cdot c[i/k] \cdot i(t)$ are the investment expenditures including adjustment costs¹¹⁾; d are 'accelerated' tax depreciation allowances; and z is the rate of the tax depreciation allowances. Equilibrium, on the capital market requires that for any point in time $t = [0, \infty]$

$$(2) r \cdot v(t) = \theta(t) \cdot \pi(t) + \dot{v}(t),^1$$

where r is the net rate of return requested by the shareholders, and $\theta(t) \cdot \pi(t)$ is the dividend payment net of taxes. For a personal income tax rate τ_y the

9) This assumption seems justified in Germany for middle size companies as well as for many larger ones; see: Mackscheidt, Klaus et al., Unternehmensgrößenspezifische Distributionswirkungen von Kostensteuern. Eine empirische Studie zur Steuerlastverteilung, Göttingen 1979; Mayer, Mayer, Colin and Ian Alexander, "Banks and Securities Markets. Corporate Financing in Germany and the United Kingdom," *Journal of the Japanese and International Economy*, vol. 4 (1990), pp. 450-75.

10) This tax rate τ is defined as $\tau \equiv \tau_k \cdot (1 - \tau_c) + \tau_c$ where τ_k is the Körperschaftsteuersatz, and τ_c is the Gewerbeertragsteuersatz. In Germany, the revenues of the Gewerbeertragsteuer belong to the local communities which apply their so-called Hebesatz h to 'manipulate' the actual Gewerbeertragsteuersatz: $t_c \equiv 0.05 \cdot h / (1 + 0.05 \cdot h)$

11) For the cost adjustment function, in accordance with the literature, it is assumed: $c_i > 0$ and $c_{ii} < 0$. Later in the paper the cost adjustment function is approximated by the quadratic function: $c[i(t)/k(t)] \approx 1 + \beta \frac{[i(t)/k(t) - \delta]^2}{2 \cdot i(t)/k(t)}$ with $\beta > 0$; see e. g. Summers, Lawrence, "Taxation and Investment: a q-Theory Approach," *Brookings Papers on Economic Activity*, 1 (1981), S. 67-127.

dividend expression equals:

$$(3) \theta(t) \cdot \pi(t) = \frac{(1 - \tau_y) \cdot \pi(t)}{(1 - \tau_k)} \text{ or } \theta(t) = \frac{(1 - \tau_y)}{(1 - \tau_k)}$$

The so-called tax discrimination variable $\theta(t)^{12)}$ describes the opportunity costs of retained profits in terms of net dividend payments.

The change of the capital stock $\dot{k}(t)$ is defined as

$$(4) \dot{k}(t) = i(t) - \delta \cdot k(t)$$

where i are investment expenditures, and δ is the depreciation rate.

Under the assumption $\lim_{t \rightarrow \infty} v(t) \cdot e^{-r \cdot t} = 0$, for $t=0$ the market value of the capital stock (including all future dividend earnings) can be expressed as:

$$(5) v(0) = \int_0^{\infty} \theta(t) \cdot \pi(t) \cdot e^{-r \cdot t} dt$$

Substituting expressions results in:

$$(6) v(0) = \int_0^{\infty} \theta(t) \cdot [1 - \tau(t)] \cdot f(\cdot) - \{ \theta(t) \cdot [1 - z(t)] - x(t) \} \cdot c(\cdot) \cdot i(t) \cdot e^{-r \cdot t} dt + x_0(0),$$

where:

$$(7) x_0(0) = \int_0^{\infty} \theta(t) \cdot \tau(t) \cdot \left[\int_{-\infty}^0 a \cdot (t - g, g) \cdot c(\cdot) \cdot i(g) dg \right] \cdot e^{-r \cdot t} dt,$$

$$(8) x(t) = \int_0^{\infty} \theta(t+s) \cdot \tau(t+s) \cdot a(s, t) \cdot e^{-r \cdot t} ds.$$

12) See King, M. A., *Public Policy and the Corporation*, London 1977.

Equation (7) expresses the current value of the tax depreciation allowances for capital investments before $t=0$; this implies that these actions are irrelevant for the firm's optimal investment path. On the other side, equation (8) expresses the current value of all 'tax earnings' per currency unit for any gross investment in period t , with $a(s, t)$ being the tax relevant allowance rate for $c(\cdot) \cdot i(t)$ at time $t+s$.

From maximizing equation (6), one receives the investment path that maximizes the current shareholder value of the firm. The first order conditions of the *Hamiltonian* give q as the shadow price of capital:

$$(9) \quad q(t) = \{ \theta \cdot [1 - z(t)] - x(t) \} \cdot [c(\cdot) + c_l \cdot i(t)],$$

$$(10) \quad \dot{q}(t) = \{ \theta \cdot [1 - z(t)] - x(t) \} \cdot c_k \cdot i(t) - \theta(t) \cdot [1 - \tau(t)] \cdot f_k(\cdot) + (r + \delta) \cdot q(t)$$

Because of the stability of the system the transversality condition $\lim_{t \rightarrow \infty} q(t) \cdot k(t) \cdot e^{-r \cdot t} = 0$ is satisfied.

Equation (9) requires that at any point in time the shadow price of capital has to be equal to its purchasing price minus the tax depreciation allowances and minus the 'savings' from adjustment costs. Equation (10) states that the change of the shadow price of capital is defined as the current value of the stream of dividend payments that results from the net profits $[1 - \tau(t)] \cdot f_k(\cdot)$ plus the decrease of adjustments costs for future investments.

Substituting a quadratic approximation of the adjustment cost function into (9) results in:

$$(11) \quad \frac{i(t)}{k(t)} = \beta^{-1} \cdot \left\{ \frac{q(t)}{\theta \cdot [1 - z(t)] - x(t)} \right\} + \delta$$

The firm's investment demand function depends on *Tobin's* tax adjusted marginal so-called \bar{q} -value where dividend payments as taxed personal income are taken into account. *Tobin's* \bar{q} is the relation of the marginal market value of the last capital unit $q(t)$ and the unit price of the investment good $\theta \cdot [1 - z(t)] - x(t)$.

Assuming further that the tax relevant allowances are degressive with rate δ' , i. e. $a(s, t) = \delta' \cdot e^{-\delta' \cdot s}$, then the steady-state values¹³⁾ are:

$$(12) \quad x^* = \theta^* \cdot \tau^* \cdot \frac{\delta'}{r + \delta'}$$

From the equations (10) and (11), or (4) and (11), respectively, the steady-state values for q and for the capital stock k can be derived:

$$(13) \quad q^* = \theta^* \cdot (1 - z^*) - x^*$$

$$(14) \quad f_k(k^*) = \frac{(r + \delta) \cdot \left(1 - z^* - \tau^* \cdot \frac{\delta'}{r + \delta'}\right)}{1 - \tau^*}$$

In addition to the determination of the steady-state values, the model can be applied to derive optimal adjustment paths of the investment demand with respect to anticipated and to unexpected tax changes. This dynamic model is the basis for calculating the effects of four different tax measures as they were initiated to help the 'new' States with their transition problems.

2. The Impact of Tax Measures on Capital Formation in the 'new' German Bundesländer

Because of the lack of enough statistical observations for regression analy-

13) In this long-run equilibrium no tax variations are expected.

ses, some simulation calculations are presented to give an idea of how the different tax measures affect the capital investment behavior in the 'new' States. In general, the following values are assumed: $r=0.05$; $h=0$; $\delta=0.15$; $\delta'=0.30$; $\tau=0.56$; $\tau_y=0.50$. For the production function, a *Cobb-Douglas*-form is assumed such that $k(0)=100$. The firms made all optimizing calculations on January 1st, 1991; further it is assumed that the firms have reached their stationary equilibrium k^* after half a year.

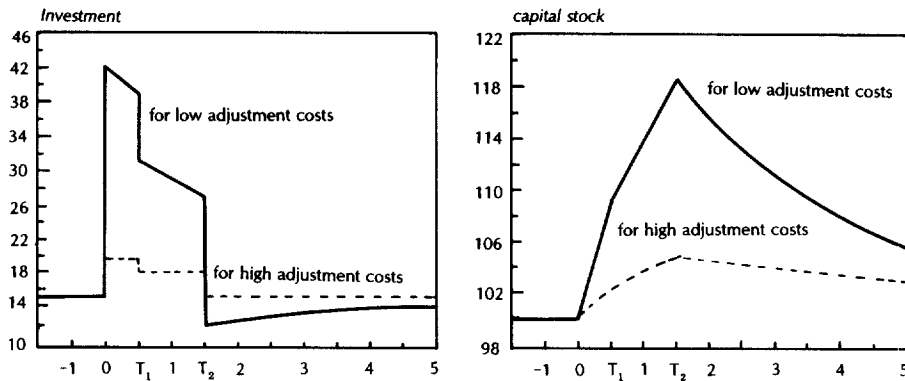
a) Effects of Investment Tax Credits

As one policy measure of the program "Aufschwung Ost" are investment tax credits of 12 percent on investment expenditures in the 'new' States until December 31st, 1991; for 1992 the rate was lowered to 8 percent. Because of the shock character of these announcements, it could be assumed that these measures were not anticipated. For calculating the current value of the deductions from the tax base, i. e. $x' [\equiv \delta' / (r + \delta')]$, a life-time of 10 years for all investment goods is assumed. Therefore, x' is:

$$(15) \quad x' = \sum_{s=1}^9 \left[\frac{\delta' \cdot (1-\delta')^{s-1}}{(1+r)^s} \right] + \frac{(1-\delta')^9}{(1+r)^{10}} \approx \frac{\delta'}{r+\delta'} \approx 0.857$$

The factor β in the adjustment cost function $c(\cdot)$ might represent the extent of special investment barriers in the 'new' States. By far it is not possible to model all of the many barriers as legal problems, the lagging privatization process, the lack of infrastructure etc. However, for different values of β it can be shown how sensitive the investment behavior reacts on these kinds of obstacles.

〈Fig 1〉 Optimal Time Paths for Investment Tax Credits (for different β -values)



From figure.1 it is obvious that the impact of the adjustment cost factor is very strong. While for a low β ($=1$) the capital stock would have increased by 20 percent in July 1992, the increase would be only 5 percent for a high β ($=5$). The effect of the lower rate of the tax investment credit for 1992 becomes very obvious from the left one of the two figures.

Almost identical effects result from a second kind of tax investment credit. Within the program "Verbesserung der regionalen Wirtschaftsstruktur" a maximum of 23 percent for most kinds of investment is given. The most practical difference with respect to the former policy is that these grants increase the firms' tax base in the same year.

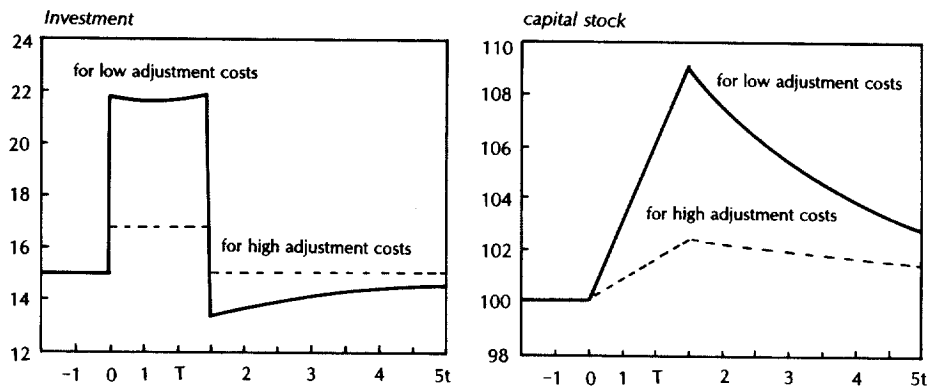
b) Special Depreciation Rates

Before reunification, firms in regions along the GDR border, so-called "Zonenrandgebiete", received special tax treatments. The special depreciation procedure of 50 percent depreciation within 5 years (in addition to the normal depreciation) was adopted for the 'new' States. Mostly, for demon-

stration purposes, it is assumed that the total of 50 percent is applied in the first year.

In accordance with equation (15), in this case the current value of the deduction rate is $x' \approx 0.94$. In figure. 2, the simulation results of this policy measure are shown, again under the assumption of different adjustment costs.

〈Fig 2〉 Optimal Time Paths for Special Depreciation Rates
(for different values of β)



As expected, again the increase of the capital stock depends very much on the size of the adjustment cost factor. A comparison of this policy with the investment tax credit program show that the short-term effects are much lower in this case. The difference increases by loosening the strong assumptions with respect to writing off 50 percent in the first year.

c) Aggregate Tax Investment Effects

When taking all 3 tax investment programs, as discussed before, simultaneously into account, the results show, of course, an average of the single results. The speed of the increasing capital stock (by around 75 percent) depends heavily on the cost adjustment factor. While for low

adjustment costs, the total capital stock increase could have been reached by 1993, it might take 20–30 years for high adjustment costs.

In all three cases it was assumed that there will be no more special tax programs beyond the announcement in 1991. However, with respect to the low growth rates and high unemployment rates in the 'new' States, additional new tax programs could be expected. These kinds of expectations would decrease the tax effects discussed before. On the other side, the negative effect of the cost adjustment factor is much less.

V. Summary and Some Conclusions

The dominant effect of the cost adjustment factor on the tax effects should be seen as an important signal to reduce all kinds of investment obstacles soon.

These investment drags dampen the tax effects on real capital formation directly, and therefore, lead to low income growth rates and high unemployment. Indirectly, this overall bad economic development leads to expectations about new tax investment programs which could make the situation even worse. Indeed, the German government renewed similar programs again and again, taking the loss of credibility into account.

Subsidizing investment could lead to real capital that will not become competitive. Therefore, there is always the danger that subsidizing creates new needs for more state intervention. The many empty office buildings in towns like Leipzig, Chemnitz etc. might be a first warning.

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〈國文要約〉

統一된 環境에서 獨逸의 投資促進을 위한 租稅政策

獨逸이 통일된 지 7년이 지난 이즈음 동독지역과 서독지역은 경제적으로 큰 격차를 보이고 있다. 收斂理論 — 만약 거기에 어떤 수렴이 있을 수 있는 것이라면 — 이 제시하는 것보다 동독지역 주정부들의 經濟成長은 훨씬 늦게 진행되고 있다.

본 논문에서는 독일에서의 民間投資의 진행과정에서 나타나는 특징적인 요인들과, 그리고 연방정부의 특히 租稅와 관련한 財政政策의 變化에 대해서 연도별로 정리하고 있다.

統一以後 독일의 財政 租稅政策上的 變化는 1992년의 부가가치세 인상, 1992년의 소득세 공제대상 자본소득의 인상, 1993년의 지방재정조정제도의 조정, 1993년의 투자촉진을 위한 세제지원 강화, 1993년의 석유세 인상, 1995년의 구동독지역에 대한 투자세액공제제도의 연장(1998년까지), 1996년의 재산세 폐지, 1996년의 구동독지역에 대한 투자세액공제제도의 연장(2004년까지), 1997년의 영업세 자본환의 폐지(1998년부터 시행) 등으로 나열할 수 있다. 통일 이후 독일의 稅收變化를 살펴보면 통일 후 2년간은 세수규모가 통일 후의 특수경기와 세율인상에 의하여 크게 증가하였다. 그 뒤 1993년부터 1996년까지는 세수가 2.25% 증가하여 名目國內生産이 3.5% 증가한 것에 비하여 다소 낮은 수치를 나타냈다. 이는 直接稅 分野의 稅收不振에 기인하는 것이다. 사회보장기여금도 같은 기간동안 크게 증가하여 1996년 기준으로 사회보장기여금을 포함한 租稅負擔率은 역사상 어느 시기보다도 높았다. 그러나 이 수치는 스웨덴, 덴마크, 벨기에, 오스트리아와 네덜란드보다는 낮은 것이었다.

1990년대 들어서서 독일내 投資는 줄어드는 추세를 보였으며 특히 최근(1993~1994년)에 이러한 현상이 심하게 나타났다. 동·서독지역을 구분하여 볼 때 서독지역이 상대적으로 이러한 현상이 매우 심하여 1994년에는 1990년에 비하여 30% 이상

의 投資가 減少하였다. 1980년대 중반 독일의 海外直接投資는 경제의 글로벌화와 더불어 늘어나는 반면에 외국의 독일내 투자는 1980년대 후반부터 줄어드는 추세를 보였다. 고임금과 최근의 독일 마르크의 高評價, 各種 規制, 租稅負擔 및 社會保障負擔은 이러한 자본의 해외유출의 원인으로 지적되고 있다. 본 논문에서는 독일의 장기적 발전방향과 관련하여 이러한 요인들에 대해서 논의하고 있다.

본 논문에서는 동독지역의 資本形成을 기준으로 측정된 稅制改革에 대한 평가의 기초로서 Q이론 모델을 제시하고 있다. 간단한 시뮬레이션을 통하여 조세정책이 現在와 未來의 投資行爲에 큰 영향을 미칠 수 있음을 보여주고자 한 것이다. 투자에 미치는 조세의 영향을 알아보기 위한 모델로서는 投資需要函數를 도출하기 위하여 동적 신고전기업모델을 사용하였고 이를 통하여 독일 동독지역에서의 조세유인이 어떻게 작용하였는가를 살펴보았다. 투자세액공제제도와 특별감가상각제도 중에서 費用控除效果의 현재가치가 特別減價償却制度에서 다소 높게 나타났다.

결론적으로 費用控除效果 推定을 통한 세제지원 효과의 고찰을 통하여 모든 종류의 투자에 관한 제한이 제거되어야 한다는 점이 도출되었다. 이러한 투자장애요인들은 실질자본 형성에 대한 稅制支援 效果를 감소시키고 나아가서 성장을 저해하고 실업을 증가시킨다. 간접적으로 이러한 낮은 경제발전은 새로운 조세지원에 대한 기대를 야기시키고, 독일정부정책에 대한 신뢰성을 잃게 하는 새로운 지원제도는 사태를 더욱 악화시킨다. 투자에 대한 정부의 보조는 결국 경쟁력 없는 자본형성을 도울 뿐이다. 정부보조는 항상 또다른 국가의 개입을 초래할 가능성이 높다.

본 논문은 위에서 제시된 요인들과 함께 독일에서의 長期的인 稅制改革 方向을 제시하고 있다. 독일의 높은 실업률, 마스트리히트조약의 수렴기준 그리고 단지 통일과정에서만 연유된 것이 아니라 독일의 構造的 危機 등에서 기인한 독일의 특별한 경제 상황과의 연계 속에서 이러한 稅制改革 方案이 논의되고 있다. 주된 논의점은 독일이 1990년대 초기의 경제호황으로 인하여 세계개혁의 기회를 놓친 것인가 하는 것이다.

〈第3主題 討論〉

❖ 李麗鳳(對外經濟政策研究院 研究委員)

Thank you very much for your excellent paper. If I may, I would like to make some remarks on your paper and ask some questions.

Firstly, on your paper I would like to make two suggestions for further research. The first point concerns the financing of capital for investment. Your model assumes that the firm finances additional investments with retained earnings. As you mentioned, this assumption seems justified for companies from former West Germany. But as far as I think, there are two other groups of potential investors, namely the foreign investors and investors from former East Germany. And these investors may be constrained in terms of liquidity.

The second point concerns the investors' attitudes toward risk. Basically, there are three factors which may influence the investment decision frame: return on investment, liquidity and investors' risk attitude. The three potential investors mentioned above, namely investors from former West Germany, investors from former East Germany and foreign investors, may have different attitudes toward risk. Hence they may have different reactions to different types of tax incentives as well.

With regard to these two points, I would like to recommend that this model could be applied separately to these three potential investors, if significant data from the firm level were available.

Secondly, I would like to ask some questions about the efficiency of tax measures. You have analysed the effects of three tax measures, that is to say, investment tax credits, special depreciation allowances and investment

grants. I tend to see the investment grants not as tax measures, but as subsidy measures. Anyhow, since these three measures have their own policy targets, it would be very difficult to find what measures contribute most to inducing investment into the new German States. Based on your five years of observations on the effects of these measures, could you explain which measure is the most efficient?

Lastly, I want to ask a general question about Germany's tax reform. You referred to FDI in Germany as a proxy variable for the quality of Germany as a business location. The negative net balance effect of FDI implies that Germany has become a bad business location. One reason for this effect is the high tax burden on companies. Based on Jacobs/Spengel research in 1997, we can also see that the tax burden in Germany is higher than any of the other three countries like the United States, France and the United Kingdom.

As far as I know, at the beginning of this year the German government planned to reform its total tax system in order to reduce the tax burden of German companies. One of the tax reform measures is decreasing the corporate income tax rate from 45% to 35%. But this plan has vanished except for the abolition of trade tax on capital and decrease in the rate of the so called "solidarity levy". Would you tell us your opinion on why this tax reform happened to fail?

❖ 安鍾錫(韓國租稅研究院 研究委員)

投資에 대한 租稅效果 중에서 Ziemes 박사의 모델은 留保利益을 신규투자자자원으로 활용하는 것을 기본가정으로 하고 있다. 서독에서 서독내에 투자하는 경우 이러한 가정이 적절할지 모르지만, 서독기업이 동독에 투자할 경우 그것을 유보이익으로 전부 조달할 수 있었는지는 의문스럽다. 우리나라의 경우 통일이 되어 남한의 기업이 북

한에 투자할 경우 留保利益으로 투자할 수 있는 규모는 그다지 크지 않을 것으로 추측된다. 따라서 투자를 위한 負債增加나 新株發行이 필요하며, 어떤 방식으로 재원을 조달하는가에 따라 효과가 다르게 나타날 수 있으므로 다양한 財源調達方式의 效果를 검토할 수 있는 모형의 개발이 필요하다.

다음은 投資家의 問題이다. Ziemes 박사의 논문에서는 투자가에 대한 특별한 정의가 없는데 이에 대한 概念規定이 필요하다. 만약 독일인 투자가가 구서독지역에 투자할 것인가 아니면 구동독지역에 투자할 것인가에 대한 의사결정에 초점이 맞추어진다면 모형 내에서 구서독지역에 투자하는 경우와 구동독지역에 투자하는 경우의 租稅負擔을 비교할 수 있어야 할 것이다.

이 논문에서는 조세유인을 租稅減免(tax credit)과 減價償却으로 제시하였다. 이러한 투자유인정책이 존재하는 상태에서 외국인 투자를 촉진하기 위하여 독일 전지역의 투자에 대한 名目稅率을 인하한다면 이는 구동독지역과 서독지역 사이의 조세부담의 격차를 감소시키는 결과를 초래할 수 있다. 예를 들어 1993년 명목법인세율을 인하는 조치가 있었는데 이로 인해 구동독지역간의 세부담 격차가 줄어들어 오히려 자본을 구동독지역에서 서독지역으로 이동시키는 효과가 나타나지 않을까 하는 생각이 든다.

우리나라의 경우 통일이 되면 外國資本의 流入을 촉진하기 위한 조세정책을 마련해야 한다는 주장이 대두될 것으로 생각되는데 이때 북한지역에 대한 投資稅額控除가 租稅支援制度와 상충되는 효과를 가져올 수도 있으므로 名目稅率의 引下와 같은 조세정책을 시행하는 데는 신중을 기할 필요가 있다.

결론적으로 조세지원제도의 효과가 調整費用(adjustment cost)에 의해서 크게 영향을 받는다는 Ziemes 박사의 결론에 동의하는데, 이 결론이 우리나라에 주는 시사점은 북한지역에 대한 투자촉진을 위해서는 조세지원제도보다 調整費用을 節約하는 方案을 마련하는 것이 우선되어야 한다는 것이다.

Session IV

Unification and Tax Policy in a Globalized Korea

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Contents

- I . Introduction
- II . Globalization and Tax Policy
- III . Tax Policy in the Case of Immediate Integration
- IV . Tax Policy in the Case of Gradual Integration
- V . Conclusions and Policy Implications

I . Introduction

In considering the unification of the two Koreas, there are important fiscal concerns which need to be examined. One of the most interesting of these, is the estimation of costs leading up to and resulting from unification, and the accompanying financing methods for these costs. In addition, there are two further areas of concern which need to be examined, namely, the areas of macro fiscal policy for the stabilization of the economy, and integration of the fiscal systems post-unification. The latter area of study include concerns such as the integration of the tax and budget systems, and the tax and fiscal policies for investment and economic stabilization. This paper will concentrate on these latter issues relating to the formulation of a tax policy in preparation for a unified Korea.

In recent years, the process of globalizing the Korean economy has signified a rapid opening of the capital, labor and commodities markets. Accordingly, unification must follow in a continuing climate of globalization. In turn, the globalization of the Korean economy cannot but impact upon the unification process. Chapter II will go on to look to the significance of the globalization process on the Korean economy and its tax policies, with particular reference to other participating OECD countries. Further, it will examine the implications of globalization for a unified Korea. Chapters III and IV investigate into adequate tax policies thereof, taking note of two possible forms of integration – immediate, and gradual. Finally, conclusions are drawn in Chapter V, and policy implications outlined.

In order to make better informed assumptions in the formulation of an integrated tax system, it is essential to gain a general understanding of the

present North Korean tax system. Thus, Appendix I gives a brief explanation of the North Korean tax system. Appendix II surveys the German tax policy as impacted upon by unification.

II. Economic Globalization and Tax Policy

1. Economic Globalization

In the past decade, international trade and investments have accounted for much of the economic activities of the world nations. Foreign Direct Investment (FDI) outflows in OECD countries show an increase of 44.2 percent from 1,798 billion US dollars (US\$) in 1991, to US\$2,592 billion in 1996. FDI inflows of OECD countries also recorded US\$1,983 billion in 1996, this figure being a 67.9 percent increase from the 1991 figure of US\$1,181 billion.

〈Table 1〉 Direct Investment Flows in OECD Countries

(unit: million US\$)

	outflows				inflows			
	1991	1993	1995	1996 ¹⁾	1991	1993	1995	1996 ¹⁾
Australia	2,026	1,087	4,064	1,518	4,773	3,381	14,193	6,067
Canada	5,409	5,805	5,747	7,561	6,544	4,980	10,739	6,696
France	20,501	12,167	10,694	17,734	11,073	12,142	13,357	14,383
Germany	22,879	19,557	38,573	27,883	4,263	240	12,050	-3,243
Japan	30,726	13,714	22,628	23,468	1,368	86	41	222
U.K	15,597	25,697	42,676	43,717	15,934	14,536	22,810	32,766
U.S	32,098	72,601	95,509	88,304	25,446	41,107	60,236	83,950
Total OECD	179,775	189,532	288,994	259,178	118,139	12,661	215,104	198,326

1) Preliminary Figures

Source: OECD, *Financial Market Trends*, No. 64, June 1996.

OECD, *Financial Market Trends*, No. 67, June 1996.

The size of world trade has continued to increase, rising 51.4 percent from US\$7,015 billion in 1991, to US\$10,624 billion in 1996.

〈Table 2〉 World Trade Volume

(unit: million US\$)

	1991	1993	1995	1996
Australia	83.6	88.3	114.0	126.0
Canada	251.9	284.2	360.6	376.8
France	448.9	411.2	562.0	566.1
Germany	792.8	728.5	988.1	976.8
Japan	551.8	603.9	779.0	760.1
U.K	394.9	385.6	505.8	546.5
U.S	930.1	1,068.2	1,355.6	1,447.1
Total Volume	7,014.6	7,525.6	10,226.6	10,623.9

Source: IMF, *International Financial Statistics Year Book*, 1995.
IMF, *International Financial Statistics*, Aug 1997.

〈Table 3〉 Trend in Korea's Direct Investment Flows

(unit: project, US\$1,000)

	outflows		inflows ¹⁾	
	Project	Amount	Project	Amount
1991	443	1,115,046	296	1,395,996
1992	497	1,217,935	236	894,476
1993	683	1,262,020	278	1,044,274
1994	1,475	2,298,185	424	1,316,505
1995	1,291	3,066,741	578	1,941,423
1996	1,392	4,176,309	613	3,202,646

1) Permitted Value Base

Source: The Bank of Korea, *Overseas Direct Investment Statistics Yearbook*, annual.
Ministry of Finance and Economy (MOFE), *Trends in Foreign Investment and Technology Inducement*, May 1997.

FDIs in Korea have increased rapidly due to its current account surplus, deregulation and changes in the economic situation both domestic and abroad. FDI outflows in 1996 reached US\$417,631 million. This is a 313 percent increase in the volume as compared with US\$111,505 million in 1991. FDI inflows have also increased 129 percent as compared with US\$139,599 million in 1991 to US\$32,265 million in 1996.

In international trade and investment, the ratio of multinational corporations have been rapidly rising. Intra-firm trading now accounts for 60 percent of international trade in goods, services and technology, and today, the top 100 Multi-National Enterprises (MNEs) own approximately 16 percent of the world's assets.

2. Globalization and Tax Policy

a. Effect of Globalization on Tax Policy

In market economies, especially with the advent of the general liberalization process in world economies, the role of government is limited to establishing market structures, and regulating and monitoring activities within those structures. This rationale has been the basis for the deregulation of direct controls in areas such as foreign exchange and industry investment. Further, indirect regulations such as tax policies, have instead gained a relatively more important role.

The effect of globalization has been to enhance the geographical mobility of capital. The benefits derived from this to the world economy are clear: international allocation of savings and capital has improved stimulating incentives for firms to invest. The tax base has become more mobile, and business decisions, such as those involving investment and financing, have therefore

become more sensitive to tax differentials between countries. Thus, it has been acknowledged that high tax rates on capital are no longer feasible, and this has perhaps been responsible for some of the cuts in corporate tax revenue (as shown in Table 8) and personal income tax rates (as shown in Table 4). The OECD has also recognized problems arising from the risks of tax competition, for example, where individual countries cannot satisfy the necessary budget demand, and are only able to tax immobile factors such as land and consumption. Under the leadership of the OECD, world nations are working to resolve such problems, progressing towards tax harmonization through the restrictive use of special favorable tax systems in relation to foreign capital provided for in tax treaties. Consequently, the international interdependence of economic policies are being reinforced.

b. Globalization and Tax Reform in OECD Countries

This section of the chapter focuses on a series of recent trends in tax reform, and examines the various factors that may drive tax reforms in the coming years, both in Korea and in the world.

The main driving forces behind reforms have hitherto been:

- (a) globalization;
- (b) developments in tax collecting technology (that is, computers have provided a more efficient and easier means of collecting data on transactions, while the costs of tax inspectors and lawyers continue to increase); and
- (c) a widespread desire to eliminate fiscal distortions and move toward a neutral tax system.

Changes in the 1980's and the early 1990's included:

- (a) Lower upper-bracket income tax rates;

- (b) A broader income tax base;
- (c) Changing tax structures;
- (d) Rise of the Value-Added Tax (VAT);
- (e) A broader VAT base; and
- (f) Repercussions of the personal income tax trend on company taxes¹²⁾.

(1) Lower upper-bracket income tax rates

Table 4 shows that 20 countries – with Turkey being the only exception, having initially begun with a very low marginal rate – cut their top marginal rates in recent years, by an average of over ten percentage points. However, the vast majority of these cuts occurred in the late 1980's, and top rates have remained fairly stable throughout the 1990's.

(2) A broader income tax base

In many cases, countries financed cuts in upper marginal rates by broadening the tax base. The shift to a broader tax base with lower upper-bracket personal income tax rates, has meant that the revenue raised from personal income taxes has not declined significantly. In 1994, this shift raised an average of 10.7 percent of the GDP across OECD nations, compared with 11.3 percent in 1980¹³⁾.

(3) Changing tax structures

Table 5 evidences the shift to general consumption taxes. It should be

12) J. Owens and E. Whitehouse, "Tax Reform for the 21st Century," *Bulletin, IBFD*, Nov/Dec 1996.

13) J. Owens and E. Whitehouse, "Tax Reform for the 21st Century," *Bulletin, IBFD*, Nov/Dec 1996.

**〈Table 4〉 Central Governments' Top Marginal
Personal Income Tax Rates**

(unit: %)

	1986	1990	1995
Australia	57	47	47
Austria	62	50	50
Belgium	72	55	55
Canada	34	29	31.3
Denmark	45	40	34.5
Finland	51	43	39
France	65	57	56.8
Germany	56	53	53
Greece	63	50	40
Iceland	38.5	33	38.15
Ireland	58	53	48
Italy	62	50	51
Japan	70	50	50
Luxembourg	57	56	50
Netherlands	72	60	60
New Zealand	57	33	33
Norway	40	20	13.7
Portugal	61	40	40
Spain	66	56	56
Sweden	50	20	25
Switzerland	13	13	11.5
Turkey	50	50	55
United Kingdom	60	40	40
United States	50	28	39.6

Notes: Canada, Finland, Iceland, Norway, Sweden, Switzerland and the United States also have personal income tax levied by a sub-central government.

Source: J. Owens and E. Whitehouse, "Tax Reform for the 21st Century," *Bulletin*, IBFD, Nov/Dec 1996.

noted however, that this shift has signified an alteration in the taxes on other goods and services (such as excise duties), impacting little on personal and corporate income taxes.

〈Table 5〉 Structure of Taxation in OECD Countries (% of total revenue)

	1965	1970	1975	1980	1985	1990	1994
Personal income	26	28	31	32	30	30	28
Corporate income	9	9	8	7	8	8	8
Social security	19	21	25	25	25	25	27
Property	8	7	6	5	5	5	5
General consumption	12	13	13	14	16	17	18
Other goods and services	24	22	17	17	16	15	14

Source: OECD, *Revenue Statistics*, annual.

(4) Rise of the VAT

The primary reason for the growth in general consumption tax revenue has been the substitution of retail and wholesale sales taxes with the VAT. The second reason for the growth in general consumption taxes has been the tendency for rates of the VAT to rise once the tax is introduced. The average rate of the VAT on its introduction into countries is 12.5 percent – the average in 1996 was 17.5 percent. Table 6 charts the rise of the VAT as more countries began to introduce the VAT.

(5) A broader VAT base

All countries exempt many services from the VAT (including financial services, property letting, medical care, education, charities and gambling) and apply lower or zero rates on certain other goods and services, such

〈Table 6〉 VAT in OECD Countries

(Unit: %)

	Year VAT introduced	Initial standard rate	Current standard rate
Austria	1973	16	20
Belgium	1971	18	21
Canada	1991	7	7
Denmark	1967	10	25
Finland	1969	11.1	22
France	1964	20	20.6
Germany	1968	10	15
Greece	1987	16	18
Iceland	1989	22	24.5
Ireland	1972	16.4	21
Italy	1973	12	19
Japan	1989	3	5
Luxembourg	1970	8	15
Mexico	1960	10	15
Netherlands	1969	12	17.5
New Zealand	1986	10	12.5
Norway	1970	20	23
Portugal	1986	16	17
Spain	1986	12	16
Sweden	1969	11.1	25
Switzerland	1995	6.5	6.5
Turkey	1985	10	15
United Kingdom	1973	10	17.5

Source: OECD, *Consumption Tax Trends*, 1995.

as books and newspapers, transport, and food. Some countries have followed the trend occurring in personal income tax rates, shifting to a broader VAT base. As noted above, this reduces distortions in consumers' consumption patterns and thereby improves the efficiency of the economy.

〈Table 7〉 VAT Revenues, Standard Rate and Estimated VAT Base (in 1993)

(Unit: %)

	Standard VAT Rate	VAT Revenues (% of GDP)	VAT Base (average = 100)
Austria	20	8.3	102
Belgium	20.5	7.0	84
Canada	7	2.6	90
Denmark	25	9.8	96
Finland	22	8.6	96
France	18.6	7.5	99
Germany	15	6.8	111
Greece	18	8.5	116
Iceland	24.5	9.9	99
Ireland	21	7.0	82
Italy	19	5.6	72
Japan	3	1.5	123
Luxembourg	15	6.7	110
Netherlands	17.5	7.0	98
New Zealand	12.5	8.2	161
Norway	22	9.1	102
Portugal	16	6.2	95
Spain	15	5.1	83
Sweden	25	8.5	83
Switzerland	6.5	2.7	102
Turkey	15	5.7	93
United Kingdom	17.5	6.6	93

Source: OECD, *Consumption Tax Trends*, 1995
 _____, *Revenue Statistics*, 1996.

(6) Repercussions of the personal income tax trend on company taxes

Directions in the corporate income tax have followed trends in the personal income tax: the tax base has been broadened and rates reduced. Various incentive schemes have been limited or abolished, including schemes for particular regions or sectors and for investment credits. Depreciation rates for tax purposes have been brought more closely in line with actual economic depreciation rates.

〈Table 8〉 Central Governments' Basic Rates of
Corporate Income Tax, 1986 ~ 1995

(Unit: %)

	1986	1991	1995
Australia	49	39	33
Austria	30	30	34
Belgium	45	39	39
Canada	36	29	29
Denmark	50	38	34
Finland	33	23	25
France	45	34/42	33
Germany	56	50/36	45/30
Greece	49	46	35/40
Iceland	51	45	33
Ireland	50	43	40
Italy	36	36	36
Japan	43	38	38
Luxembourg	40	33	33
Netherlands	42	35	35
New Zealand	45	33	33
Norway	28	27	19
Portugal	42/47	36	36
Spain	35	35	35
Sweden	52	30	28
Switzerland	4-10	4-10	4-10
Turkey	46	49	25
United Kingdom	35	34	33
United States	46	34	35

Source: OECD, *Taxing profit in a global economy*, Paris, 1991.

J. Owens and E. Whitehouse, "Tax Reform for the 21st Century," *Bulletin*, IBFD, Nov/Dec 1996.

Notes: Rates rounded to nearest percentage point. Austria, Canada, Finland, Germany, Italy, Japan, Norway, Portugal, Switzerland and the United States also have corporate taxes applied by sub-central government agencies. Many countries also have special rates for firms with lower profits and for particular sectors.

3. Globalization as a Restricted Environment for Tax Policy in the Process of Unification

Following from the foregoing section, it is evident that the classification of domestic and international economic policies have become meaningless because of the greater international interdependency of economic policies. Thus, in formulating any tax policy for the financing of unification costs and for continual economic growth post-unification, it is fundamental that consideration be given to the globalized world economy in which unification will take place.

Tax policy for the financing of unification costs is necessarily affected by globalization. For example, indirect taxes and wealth taxes are not heavily affected but individual and corporate income taxes are likely to be most heavily affected because of the increasing international mobility of labor and capital. It is very difficult to impose a heavy tax burden on such production factors for the purpose of satisfying the domestic revenue demand.

Globalization also has implications for investment incentives. For the mobilization of the North Korean economy post-unification, capital from external sources (foreign and South Korean capital) will become a most crucial factor. However, investment incentives may function restrictively because of the effects of globalization. For example, the exemption of corporate income taxes cannot be effective in attracting foreign capital. This is because, when foreign countries tax their citizens through the foreign tax credit system for income earned abroad on investments, the exemption effect does not flow on to the individual citizen, but to the foreign countries.

A further issue to be considered is whether the WTO will recognize transactions between the North and South as domestic transactions. Prior to unifi-

cation, the mode of supporting commodities and investment transactions between North and South Korea will become an issue of great interest. If a system favoring the North in the areas of customs duties and the like were introduced, it is most probable that the WTO will deny this favorable system under its "most favored country treatment clause".

III. Tax Policy in the Case of Immediate Integration

Where a unification of the two Koreas occurs due to a sudden collapse of North Korea and its economy, without an extensive period of preparation, there would be little alternative other than to implement the present South Korean tax system as it is, with some necessary minor amendments. The present South Korean tax system reflects capitalist values which it acquired upon liberation, and it continues to adapt to social and economic fundamentals. As such, it would be difficult to find viable alternatives for a unitary tax system. Indeed, in formulating tax policies for a unified Korea, consideration must be given to the possible mobilization of economic activities within North Korea.

1. Company Tax

In the event of unification, policies must be directed to mobilize the North Korean economy. These policies would be premised on the understanding that essentially, there must be a mobilization of companies. This has significant implications for company tax. In Germany, the government exempted corporate income taxes and business taxes for several years, and additionally offered the tax credit system, accelerated depreciation and investment subsi-

dies, in attempts to mobilize resources and encourage investment after unification took place. Thus, it may be similarly said, that in order to expand the North Korean economy after unification, investment would be better stimulated through reductions in the corporate income tax, registration tax, and the acquisition tax.

In the early stages of investment in North Korea, because of the low taxable income threshold, exemption of corporate income taxes will amount to little more than empty polices. Instead, it would be more meaningful to implement the accelerated depreciation and the tax credit system. Initially, these too may appear to be ineffective due to the low taxable income, however, they are more effective in that they reduce the taxable incomes of the mother companies in South Korea.

Investment subsidies are perhaps the most effective tool for encouraging investment, however, because of its burdensome effect on government revenue, the viability of effecting investment subsidies will, of necessity, depend on the government budget.

Thus, overall:

- (a) gauging its efficacy at the initial stages of investment;
- (b) giving consideration to the globalizing economic environment;
- (c) weighing its impact upon the budget burden; and
- (d) considering the source of the investment;

accelerated depreciation is found to be the most effective tool for encouraging investment in North Korea (see Table 9).

This, however, is valid only in the case of South Korean capital, and not in the case of foreign capital. In relation to foreign capital, it is not possible to deduct the depreciation on investment assets in North Korea from the taxable incomes of investors in their relevant home countries.

〈Table 9〉 Effectiveness of Investment Incentives

	Effectiveness at the Initial Stage of Investment		Effectiveness in a Globalized Economic Environment		Budget Burden	
	South Korean Capital	Foreign Capital	South Korean Capital	Foreign Capital	South Korean Capital	Foreign Capital
Exemption of Corporate Income Tax	not effective	not effective	effective	not effective	no	no
Accelerated Depreciation	effective	not effective	effective	effective	no	no
Tax Credit	effective	not effective	effective	not effective	no	no
Investment Subsidies	effective	effective	effective	effective	yes	yes

However, as a means of raising revenue to finance the costs of unification, the corporate income tax is of little value. This because, firstly, if South Korean enterprises are encouraged to invest in North Korea, accelerated depreciation and tax credit allowances will apply, thereby lowering their taxable income. A corporate income tax on this lowered income will have little effect in raising necessary revenue to finance unification costs. Secondly, within the context of a globalizing economic environment in which there is a higher degree of mobility in foreign capital, an increase in the corporate income tax will lead to a shift in the foreign capital away from Korea. This will have adverse effects on post-unification Korea, which will be in dire need of foreign capital.

2. Indirect Tax

In the case of immediate integration, the Value-Added Tax (VAT) must be

immediately introduced into North Korea. This is because, in comparison to other taxes such as the property tax or the income tax, indirect taxes, such as the VAT, if effected as two distinct taxes in simultaneous operation in the North and in the South, will lead to great economic distortions. To give a simple illustration of the nature of the economic distortions, if a good is manufactured in the South, the same goods are distributed in the North, and then consumed in the South, given that the North does not have an effective indirect tax system such as the VAT, a South Korean consumer will be able to purchase the goods from the North Korean distributors at a much cheaper rate than purchasing the identical good from a South Korean distributor. The distortional effects of this will have greater implications for the future of the overall Korean economy.

Therefore, priority must be given to the imposition of indirect taxes such as the VAT at the onset of unification. A requisite precondition for the implementation of such a tax system however, is the establishment of an efficient tax administration body. Currently, no such body exists in the North, thus it is imperative that the South Korean government assist in the establishment of an organized tax administration body for the North.

In terms of raising revenue for the financing of unification costs, the VAT may be the most effective tax in generating the necessary revenue. This is because firstly, changes in the VAT will not affect the international mobility of capital or commodities. Secondly, there is currently in existence a broad area of exemption under the VAT in operation in South Korea. These exist for example, for financial services and personal services (such as legal services), as well as for individuals who are eligible for special or simplified taxation. The effect of these exemption areas is to enhance the economic distortions in the South Korean economy. Thus, by reducing the areas of exemp-

tion, economic distortions would be reduced, and revenue to fund the costs of unification can be more readily raised.

Apart from the VAT, there exist other indirect taxes such as the special indirect tax, which should be implemented immediately, following unification, for similar reasons relating to the distortional effects in the economy.

3. Personal Income Tax

Under a unified Korea, if the present personal income tax system of South Korea is applied to the North, there are not likely to be any major negative effects. This is due to the fact that the tax-free threshold for personal income taxes are currently high, which will accommodate for the expected low incomes of the North Korean citizens.

What may raise concerns in regard to the personal income tax, is its limited ability to raise revenue to finance the costs of unification. If personal income tax rates are increased to finance these costs, then the higher income earners, being more apt to do so in a globalized world, may leave the country to avoid the increased taxes. Such a policy defeats any attempts to raise revenue.

It is interesting to note that in Germany, a surtax on personal and corporate income taxes was introduced for a limited period, and this may also pose as a viable option for Korea (see Appendix II).

4. Property Tax

Property taxes are locally-based taxes and tax objects are generally immovable, so theoretically, even where rates vary from region to region, eco-

conomic distortions will be very small. Further, because there is little accumulated property in the North, there is no urgency in effecting a uniform property tax. However, policymakers need to anticipate two phenomena which are likely to occur, namely, North Korean land sales firstly, by buyers speculating land prices; and secondly, by buyers driven by investment opportunities. In the first case, it is most probable that the low land prices in the North will attract buyers from the South, thereby pushing up the land prices. In anticipation of this, a tax policy levying taxes on North Korean land owned by South Koreans needs to be devised. At the same time however, property tax policies need also take into account instances of land purchases in the North induced by business and investment opportunities, and allowances in such cases should be accordingly made.

As a means of raising revenue for unification costs, an imposition of a property tax on South Koreans would constitute the second best alternative next to the VAT, because of the very immovable nature of the taxing object, land.

5. Tax on Foreign Capital and Trade

Both foreign and South Korean capital will play a vital role in the mobilization of the North Korean economy. Thus, tax policies will need to be investment-friendly in order to attract the necessary foreign capital, and approval structures for investment will need to be simplified.

Further, because of the relative weakness in the international competitiveness of North Korean firms, policies concerning customs duties will need to take a protectionistic approach. However, such a policy stance may conflict with WTO standards, and thus calls for further consideration.

6. Tax Administration

If unification does take place in a sudden manner, resulting in a simple adoption of the current South Korean tax for the whole of unified Korea, there are necessary implications for an efficient tax administration system. Establishing such a system would entail not only infrastructural considerations, but would need to account for highly-trained individual tax officials. Ties between the regional tax offices in the North and the South Korean tax administration will need to be established and strengthened. South Korean tax officials should be posted in North Korean regional tax offices to significantly overlook operations in the North and play an essential advisory role.

In posting South Korean tax officials to the North, it is important to provide opportunities of promotion and higher salaries. One of the first tasks of a new North Korean tax administration body would be to identify the "tax payer", as none had hitherto existed in the North. Such a task would involve a huge mobilization of resources for the collection of information on potential tax-payers. Example could be taken from post-unification Germany, where the East German tax officials accumulated data for similar purposes from the former government body, "Treuhandanstalt" and also from other independent press service agencies.

IV. Tax Policy in the Case of Gradual Integration

Where a unification of the two Koreas occurs following a gradual process, then there may be a transitional stage in which dual systems will be maintained. During this time, the North will, in all likelihood, implement a socialistic market economy, which will eventually expand into a complete market

economy. Given that North Korea may adopt a socialistic market economic structure, it follows that an appropriate tax system will need to be formulated¹⁴⁾.

Further, in maintaining dual systems in a unified Korea, there are, necessarily, implications for the policy directions of the South Korean tax system. Before looking into the effects of individual tax policies, it should be noted that, it is only in the areas of company tax and indirect taxes that directions in the South Korean tax policies will impact upon the the North Korean economy.

1. Company Tax

In the context of a socialistic market economy in the North, there must be a positive movement in their enterprise activities, for which fiscal independence must be guaranteed.

In the present tax system of North Korea, there exists a profit levy on state enterprises. Under this regime, the state determines the amount of earnings to be retained by enterprises, and residual earnings are forced back to the state. Thus it is evident that there would be little profit incentives for business enterprises in North Korea. In order to attract entrepreneurial skills and thereby investment, profit incentives should be provided and the tax rate must be legislatively fixed. Residual profits should, in turn, be left to be managed by firms according to their business decisions, whether they be invested, saved or distributed. It is essential that any limit on state retainings should be maintained under the 40% rate, as beyond this, profit incentives are again reduced.

14) See Appendix I for an outline on North Korea's current tax regime.

Meanwhile, in considering tax policy alternatives for the South, the feasibility of accelerated depreciation and the tax credit system were explored in Chapter III. In addition to these, because of the inherent investment risks associated with the North Korean economy, the South Korean tax system should encourage firms to set aside tax-free reserves for investment into North Korea, in addition to the present tax-free reserve for general foreign investment.

2. Indirect Tax

Generally, within socialistic market economies, indirect taxes function as the central government's price control mechanism. As such, there is a wide discrepancy in the indirect tax rates that are applied to goods depending on the nature of the goods themselves¹⁵⁾. However, the prices of goods in socialistic market economies should not be interfered with by the state. Instead, prices should reflect the market forces of demand and supply, only then can there be an efficient allocation of production resources.

Therefore, there must a change in the direction of indirect tax policies applying to North Korea. From a long-term perspective, it is desirable to introduce the VAT. However, as noted in Chapter III, the implementation of the VAT requires an accompanying establishment of a well-functioning tax administration body, of which there is presently none in North Korea. Thus, the short-term alternative would be to modify the currently operating sales levy in North Korea to a sales tax, where the rates do not differ greatly from good to good.

15) The sales levy rates that are currently imposed in North Korea are unknown as these figures have not been released outside of North Korea.

Indirect tax policies in South Korea can also be implemented to aid the North Korean economy, in particular, a special VAT treatment can stimulate North Korean exports. For example, by lowering the VAT paid by South Korean importers of North Korean goods, the overall tax burden on consumers would be lowered accordingly, thereby making North Korean export goods to South Korea cheaper and more accessible to South Korean consumers.

Indeed, the West German government adopted such a tax scheme prior to the unification of Germany. Prior to 1993, the VAT stood at 14% in West Germany, however, East German import goods were granted an 11% exemption. That is, there was effectively, only a 3% VAT rate attached to East German import goods. Similarly, some goods, such as food products, had only a 7% VAT rate initially, of which a 5.5% exemption applied to East German food products, such that only a 1.5% VAT rate was effectively applied to these goods.

While the adoption of such a scheme would greatly benefit the North Korean economy in its early phases of development toward a market economy, there is the potential danger that it would be vetoed by the WTO. The WTO may not recognize the transactions as valid under its guidelines, their approval or disapproval depending on whether they classify the two Koreas in a transitional stage toward unification as two independent nations or not. In the case that the two Koreas are identified as two independent states, the kind of trade transactions outlined above would fall under WTO's "most favored country treatment clause" and the relevant sanctions would thereby be applied. Thus, in order to avoid such possible conflicts, Korea must persuade the international community that while temporarily operating two different systems, the two Koreas in fact form one single nation, not two separate and independent nations.

3. Personal Income Tax

Whether in the case of immediate or gradual integration, a personal income tax regime will have little effect on the unification process. As noted above in Chapter III, this is because of the existence of high tax-free thresholds on personal income tax rates in Korea, which will hardly affect the majority of the North Korean population who will, presumably, have generally low incomes.

4. Tax on Foreign Capital and Trade

There are currently no customs duties levied on imports in North Korea, although there is a 25% profit tax imposed on joint venture companies¹⁶⁾. Thus, from the perspective of imposing taxes, the North Korean tax system would not be hostile to foreign capital and trade. However, apart from the basic imposition of tax rates, the North is unfamiliar with the regulatory provisions, which must necessarily accompany the tax, and there are no such regulations encoded in North Korea providing for matters such as the definition of the taxable income or deductible expenses.

Thus, North Korea's corporations law has hitherto lacked a set of regulatory guidelines for foreign investment, and if a greater degree of foreign investment is to be encouraged in the future, the uncertainties surrounding foreign investment should be reduced by effecting legislative measures. Regulations should not only address provisions in relation to tax policies, but also in relation to investment approval structures and the like. Only then will the North

16) As noted in Appendix I, there is a three year tax holiday applicable to joint venture companies in their first three years of operation, thereby allowing for a foundation period.

Korean economy be competent to induce the mobilization of its resources.

In addition, it should be noted that presently, foreign investment is only permitted in the Najin–Sunbong region of North Korea. Implicit in the efforts to mobilize the North Korean economy, is the need to further extend the free–trade areas within North Korea.

V. Conclusions and Policy Implications

This paper has sought to identify issues in relation to tax policies that will impact upon a post–unification or near–unification Korea. Further, the paper has been premised on a recognition of the effects of globalization. That is, it is recognized that if unification is to occur, it will not occur in an isolated environment in which the two Koreas are the only decision–makers and the only parties to bear the consequences. Instead, it recognizes that Korea operates in a world economy now, it not only responds to the dynamics of the internal economy, but need also respond to the rapidly changing demands and climate of world economies. Based on this premise, the paper examined the alternatives for an integrated tax policy, especially in relation to implementing tax policies which would meet demands for the anticipated costs of unification and mobilization of the North Korean economy.

Two case studies were examined in regard to possible tax policy alternatives: where an immediate integration of the two Korean systems take place; and where there occurs a gradual integration. In the first case, the view was taken that, where unification is prompted by a sudden collapse of North Korea, then there would be little alternative other than to transplant the present South Korean tax system for the whole of unified Korea.

Given a sudden integration, accelerated depreciation is found to be the

most effective tool for encouraging investment in North Korea, gauging its efficacy at the initial stages of investment; giving consideration to the globalizing economic environment; weighing its impact upon the budget burden; and considering its source.

Investment subsidies are also an effective tool for encouraging investment, however, because these have a burdensome effect on government revenue, the viability of effecting investment subsidies will, of necessity, depend on the government budget. Further, it was found that the tax credit system can be effective only in relation to South Korean capital.

It was also concluded that it is essential for an indirect tax, such as the VAT, to be implemented immediately following unification, due to the possible distortional effects on intra-trading between the two Koreas, and on the overall Korean economy.

In the second case of a gradual unification process, it was suggested that North Korea would, in all likelihood, adopt a form of a socialistic market economy prior to actual unification. The implications of this for taxation policies are that firstly, North Korea will not be able to make a direct application of the South Korean tax system for its own purposes. It will need to establish its own taxation infrastructures, and formulate appropriate policies within them. For its part, South Korea will play a significant role in aiding developments in the North, and will need to make adjustments in its tax policies to account for the new economic environment created by the near-unification. One of the challenges facing North Korean tax policies, is the urgency with which investments need to be encouraged for the North Korean economy to survive in a global economic environment. This has significant implications in relation to tax and investment policies. Currently, North Korea not only imposes a high rate of profit tax, but also retains residual earnings as part of its

state revenue, thereby eliminating any investment incentives. Thus, investments need to be encouraged through lower, fixed tax rates and, profits of firms should not be interfered with other than for the purposes of tax. While a VAT may appear a preferable tax option, because of the absence of relevant infrastructures, VAT operations would be difficult to enforce.

Thus, it is evident that regardless of how unification takes place, the establishment of an efficient tax administration body is an inherent requirement for the maintenance of any tax policy, and efforts to establish such a body should not be overlooked in considering viable tax alternatives.

Further, whether in a post-unification or near-unification Korea, intra-trade between the two Koreas may raise wider concerns in terms of the WTO. If favorable tax conditions are effected to help North Korea (for example, the VAT) in its transition process from a closed economy to a more global economy, WTO may enforce sanctions against the two Koreas under its "most favored country treatment clause", which will impact upon Korea's trading ability with other world economies. Thus, it is for Korea to not only persuade the international community of its commitment to fair trade, but to also call for immunity from such sanctions in its progress towards complete unification.

In terms of raising revenue for the financing of unification costs, the VAT may be the most effective tax in generating the necessary revenue. This is because, the areas of exempted application of the VAT would be reduced, economic distortions would thereby be reduced, and revenue to fund the costs of unification can be more readily raised.

As a means of raising revenue for unification costs, the corporate income tax will be of little value, while an imposition of a property tax on South Koreans would constitute the second best alternative next to the VAT, because

of the very immovable nature of the taxing object, land.

Overall then, it is evident that the unification of North and South Korea is no small task, particularly in relation to the formulation of tax policies. It involves a fine balancing act, requiring a careful consideration of the feasibility of the tax proposed, costs of financing the unification of Korea and parallel costs of administering the tax, the continuing mobilization of both economies, and the adherence to global standards of trade.

〈Appendix I〉 North Korean Tax System

1. Revenue from State Enterprises

North Korea officially abandoned all taxes, except customs duties, in 1974, and have since denied the existence of tax in their territory. However, North

〈Table 10〉 Structure of North Korean State Revenue

(unit: percent)

	State Revenue	Revenue from State Enterprises	Tax	Aid	Etc
1953	100.0	52.0	19.7	18.5	9.8
1963	100.0	98.0	2.0	-	-
1973	100.0	98.1	0.2	-	-
1983	100.0	100.0	-	-	-
1993	100.0	100.0	-	-	-

Source: Jin Park, *Public Finance of North Korea: Past and Present*, KDI, 1994.

〈Table 11〉 Characterization of North Korean Levies

	Sales Levy	Profit Levy from State Enterprises	Profit Levy from Cooperatives
Tax Payer	state enterprises and cooperatives ¹⁾	all state enterprises	all cooperatives
Burden	proportional to wholesale price	all residual profit except retained earnings ²⁾	proportional to profit or turnover
Character as a Tax	equivalent to turnover tax	similar to a direct tax on business profits	user-fee character

1) only for consumer goods.

2) the retained earnings amount is determined by the state.

Source: Jin Park, *Public Finance of North Korea: Past and Present*, KDI, 1994.

Korea still impose some levies, such as the sales levy and the profit levy, which function effectively as a form of tax under their economic system. These levies represent the only source of state tax revenue in North Korea, as seen in Table 10. The characterization of these levies are presented in Table 11.

2. Taxation of Foreign Investment

While North Korea generally denies the concept of taxes, some taxes, such as customs duties and profit taxes for joint companies, are imposed as exceptions. However, even these apply only to foreigners and the economic activities of foreigners.

North Korean customs duties are not applied to international trade, as is the case in South Korea, but are levied on the hand baggages of foreign visitors and on international packages.

In recent years North Korea has allowed for the founding of joint venture companies with foreign capital, and have since introduced a profit tax for these joint venture companies. Under this tax code, 25% of net profits of the joint company are required to be transferred into state revenue. An exemption is granted during a 3 year foundation period of the joint company. In addition, a joint company founded in a free-trade area can apply for the reduced rate of 14%. Similarly, investments made in an investment encouragement area can benefit from the reduced rate of 10%. This code also levies a tax on the individual incomes of foreigners at 20% of their monthly income, which is reduced to 10% in the free-trade areas.

〈Appendix II〉 German Tax Reform and Revenue Effect after Unification

〈Table 12〉 German Tax Reform and Revenue Effect after Unification

(unit: 100 Million DM)

	change effected	1991	1992
Social Security Contribution ¹⁾	1 Apr 1991	121	111
Unemployment Insurance Contribution (up 2.5%, from 4.3% to 6.8%)	-	202	221
Pension Insurance Contribution (down 1.0%, from 18.7% to 17.7%)	-	-81	-110
Tax	-	177.5	282.5
7.5% Surtax on Income and Corporation Taxes	-	112.5	106.5
Increase in Oil Tax	-	58	140
Insurance Tax (up from 7% to 10%)	1 July 1991	7	20
Tobacco Tax (1Pfg. increase)	1 Jan 1992	-	16
VAT (up 1%, from 14% to 15%)	1 Jan 1993	-	-
Total		298.5	393.5

1) Estimated Values of the Ifo Research Institute
Source: Ifo, *ifo Schnelldienst*, 91/7, 1991, p. 24.

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〈國文要約〉

글로벌화된 韓國에서의 統一과 租稅政策

이 논문은 글로벌화된 경제환경 속에서의 急進的 統合과 漸進的 統合의 경우 租稅政策上的 과제를 다루고 있다. 즉 통일은 국제적으로 遊離된 상황하에서가 아니라 급변하는 國際經濟 환경 속에서 이루어지게 된다는 것이 기본적인 전제이다. 따라서 본 논문의 목적은 글로벌화된 경제환경 속에서의 南北統合과 관련하여 北韓經濟의 活性化와 통일재원 마련을 위한 정책방향을 모색하는 데 있다.

급진적 통합의 경우 북한지역 투자를 지원하기 위한 조세정책은 投資初期 段階의 有效性, 글로벌화된 經濟環境, 財政負擔 등을 고려할 때 여러 투자지원제도 중 감가상각제도를 통한 지원이 가장 효과적일 것으로 보인다. 다만 외국자본의 경우에는 북한지역에서의 투자에 대한 減價償却을 본국에서 과세액을 줄이는 데 사용하기는 힘들 것이므로 투자초기에는 효과가 제한적일 것이다. 投資支援金制度는 가장 효과적인 지원제도이나 재정부담을 유발한다는 점에서 사용이 제한적일 수밖에 없을 것이며 투자세액공제제도는 남한자본에 대해서는 투자지원 효과를 가져올 수 있을 것이다.

북한의 경제발전을 위해서는 外國資本의 參與가 절대적인 역할을 할 것이므로 외국자본유입을 위하여 보다 관대한 課稅, 認許可 및 기타 제도들을 도입하는 것이 필요하다. 북한지역의 취약한 사업기반을 보호하기 위해서는 관세나 기타 제도를 보다 保護主義的으로 개편하여야 할 것이나 WTO 규정 등에 대해서는 세심하게 고려해야 할 것이다.

급진적 통합으로 인한 경제적 歪曲效果를 줄이기 위하여 중요하게 고려하여야 할 문제는 국경에서 더 이상 상품 반출입을 통제할 수 없는 이상 남북한 두 지역에서 상이한 부가가치세제도를 시행하는 것은 엄청난 歪曲을 가져올 수 있다는 점이다. 따라서 남북한의 경우에도 급격한 사태 진전으로 말미암아 남북한 통합이 이루어지고 국

경통제가 철폐된다면 어떤 세제보다도 먼저 附加價值稅制度를 북한지역에 실시해야 한다.

북한지역 주민의 경우 財産形成이 극히 微弱하고 지역별로 재산과세를 차등하더라도 경제적 왜곡효과가 크지 않으므로 경제통합시 재산세 분야의 과세는 상당기간 유예시키는 것이 바람직할 것이다.

남북한이 점진적으로 통합하는 길을 걷는다면 북한의 현 체제를 천천히 변화시키며 자본주의 체제로 근접시켜야 하며, 시장경제의 성공을 위해서는 기업의 경영성과 중벌정세울만큼만 국가에 납부하고 그 외의 부분은 기업이 任意的으로 처분할 수 있는 企業所得稅의 導入이 반드시 필요하다고 생각된다.

附加價值稅制度의 施行은 잘 발달된 稅務行政組織을 전제로 하는 것이기 때문에 장기적인 관점에서 고려해야 하며 북한의 경우 단기적으로는 현재의 거래수입금제도를 販賣稅制度로 개편하되 품목별 세율의 차이는 그리 크지 않게 하고 가능한 한 小數의 稅率段階를 허용하는 방향으로 개편하는 것이 바람직하다.

북한은 현재 個人所得稅制度가 없으나 경제체제 전환과정에서 갑작스런 소득의 증가를 누리는 사람들이 있게 될 것이므로, 이들의 소득에 대해서는 適切하게 과세되도록 동 제도를 도입하여야 한다.

또 현재 북한은 나진·선봉지역 등 극히 일부 지역에 한해 외국인투자를 허용하고 있으나 社會主義的 市場經濟體制를 導入할 경우 이러한 投資許可 地域을 점차적으로 擴大하여 전국적으로 외국인투자를 허용하고 외국인투자 유치를 위하여 보다 관대한 세제를 실시하여야 할 것이다.

또 이러한 과도기적 시기의 남북한 경제교류의 활성화를 위해서는 기업과세 분야에서 북한투자에 대한 特別減價償却이나 稅額控除 이외에 투자에 대한 위험을 감안하여 현재의 해외투자손실준비금 이외에 별도의 북한투자손실준비금을 설정할 수 있도록 하는 방법과 북한으로부터의 수입에 대하여 부가가치세의 감면제도를 도입하는 방안을 고려할 수 있을 것이다. 다만 이 경우 WTO 등에서 최혜국대우조항 등을 이유로 여타국가들과의 거래에 비하여 남북한간 거래가 특별대우를 받는다고 이의를 제기할 수 있으므로 국제사회에서 남북한이 완전히 개별적인 국가가 아니라 특수관계가 있는

국가임을 인정받도록 하여야 할 것이다.

統一費用 調達을 위하여 增稅가 필요한 경우 우선적으로 부가가치세를 생각해 볼 수 있다. 그 이유로는 첫째, 附加價値稅 分野의 변화는 국제적 자본이나 상품의 이동에 영향을 미치지 않고 둘째, 부가가치세 분야에는 넓은 범위의 免稅適用事業分野와 課稅特例者·簡易課稅對象者가 존재하여 세원포착에 누락되는 거래의 비중이 크므로 면세범위와 특례대상자를 줄임으로써 경제적 왜곡효과도 줄이고 세수증대도 달성할 수 있다는 점을 들 수 있다. 다음으로 고려할 수 있는 것으로 남한지역의 자산에 대하여 재산세를 부과하는 방안이 있는데 이는 재산세의 과세대상이 이동성이 없는 자산이므로 상대적으로 소득세나 법인세 분야에 비하여 큰 경제적 왜곡효과가 작을 것으로 보이기 때문이다.

통일 후 법인세 분야에서 재원을 조달하게 될 가능성은 거의 없다. 이는 우선 남한의 많은 기업이 북한에 투자하게 되는 경우 減價償却이나 稅額控除 등으로 課稅所得이 많이 줄어들 것이고 둘째, 경제의 글로벌화로 인하여 法人稅率 引上은 外國人投資의 萎縮을 의미하므로 외국인투자가 더 많이 요청되는 통일초기에는 시행이 불가능하기 때문이다.

結論적으로 남북한의 통일은 租稅政策 分野에 국한하여 보더라도 엄청난 어려움을 수반하는 과제이므로 租稅制度의 實行 可能性, 統一費用, 南北韓 兩 地域의 經濟發展 그리고 貿易과 投資에 관한 國際規範 등을 고려하여 종합적이고 균형 잡힌 시각에서 政策判斷이 이루어져야 할 것이다.

〈第4主題 討論〉

❖ 朴 進(韓國開發研究院 研究委員)

김유찬 박사의 논문은 統一 後의 租稅政策을 글로벌화되는 국제환경 속에서 파악하려는 최초의 시도라는 점에서 의의가 크다.

남북한 통일방식을 急進的 統合과 漸進的 統合으로 구분한 것은 매우 적절하며 급진적 통합시의 投資關聯 稅制惠澤의 효과에 대한 분석은 특히 주목할 만하다. 그러나 점진적 통합의 경우 통일 이전 북한의 체제개혁 방안을 제시하고 있는 느낌이다. 다시 말해 統合 後의 남북한 조세제도에 대한 논의가 필요하다.

급진적 통합의 경우 준비기간이 없으므로 남한의 체제가 승계될 것이라고 하였는데 준비기간이 있을 경우에 대해서는 따로 논의가 이루어져야 할 것이다.

1980년대와 1990년대 각국에서 추진되고 있는 조세제도 개혁의 요인을 글로벌化, 徵稅技法의 發達, 中立的 稅制로의 轉換으로 정리하고 이에 따른 구체적인 개혁내용을 요약하고 있는데 논문에서 각 개혁내용마다 주요 추진력이 무엇이었는지를 명시적으로 밝혀야 하며 글로벌화가 租稅政策에 미치는 영향의 중요성에 대한 언급이 있어야 한다.

김유찬 박사의 논문에서 제시한 표에 따르면 글로벌化가 法人稅에 미친 영향은 없으며 個人所得稅의 하향조정은 글로벌化보다 오히려 근로의욕 고취 및 징세기법 발달에 기인한 바가 큰 것으로 보인다.

高速減價償却制度나 投資稅額控除制度나 남한 모기업의 세부담을 경감시키는 효과가 있다는 지적은 매우 적절하다. 그러나 投資補助金이나 高速減價償却制度, 投資稅額控除制度가 재정에 주는 부담은 결국 그 혜택의 크기에 달려 있는 것이지 그 제도 자체에서 기인하는 부담의 차이는 없는 것으로 보인다.

부가가치세제의 시행은 稅務行政 體系가 정비되고 價格自由化가 이루어진 후어나 가능할 것이다. 이러한 상황에서 북한에 附加價值稅를 즉시 도입하는 것은 무리가 아닌가 한다. 그리고 부가가치세 도입이 타당하나 한국의 상황은 독일의 경우와 다르므

로 동 세계 도입시의 부작용은 그리 크지 않을 것으로 보인다.

한국의 경우 외국으로의 노동이동이 자유롭다고 보기는 어려우므로 所得稅가 통합의 영향을 크게 받을지 의문이다.

급진통일된 남북한에 있어 별도의 關稅政策을 채택하는 것은 불가능하다. 관세동맹하의 다른 국가들도 동일 관세를 채택해야 하는데 남북한은 관세동맹보다 훨씬 진전된 經濟同盟 내지는 經濟統合 단계일 것이다. 통일 후 징수자에 대한 교육 이외에 납세자에 대한 교육도 중요하다.

❖ Peter Mayer(FES 韓國事務所 所長)

The paper gives a very good overview of trends in taxation in OECD-countries. It provided for interesting reading, the analysis and the hypotheses of the author are generally sound and enlightening. The statistics he presents are very useful.

There have been various attempts to look and define the concept of globalization. Dr. Kim's definition refers to the absolute increase in trade and foreign direct investment. What is, however, more important is the fact that the relative size of trade to the Gross National Product has increased in virtually all countries, and the relative size of foreign direct investment to GNP has increased even more. That means the relative importance of the world economy, of changes and developments in other countries, of product and process innovations in other places of the world have and increasing importance for any country. There are hardly sectors left which can afford to be inward-oriented.

The paper is dealing with tax policy in a globalized Korea. It is therefore important to look at the general impact of globalization on the economy in Korea and subsequently on taxation. It is proposed the author includes some

reflections on this in his final paper. Some suggestions for inclusions are as follows;

- It is very likely that globalization will increase the pressure on Korean firms to raise productivity, to cut down costs and eliminate unproductive lines of production. It is very much possible that Korea will be faced with an increased level of unemployment, possibly increasing the burden for the government to deal with this problem.
- Globalization will imply an increased mobility of capital. There is less room for nations to neglect international trends and perceptions. National policies still remain important but we might observe in the future the mainstreaming of economic policies.
- The relative importance of intra-firm trade as part of the globalization phenomenon makes it more difficult for tax authorities to accurately determine import duties.
- Globalization certainly implies the increasing relevance of policies pursued by international bodies like the WTO, OECD or the norms set by international bodies like the EU. There is an increasing pressure for countries to follow the rules and regulations, and even anticipate future changes.
- On the negative side globalization might bring some destructive competition between nations. While the competition between countries has many beneficial effects, there is the risk of having an erosion of the provision of essential public goods if – due to extensive advantages given to firms – the tax revenues of governments go down considerably.

These possible effects among others might have direct or indirect implications for taxation. It would enhance the paper even further to include some reflections on such possible developments.

The author presents statistics about taxation in OECD-countries. Unfortunately the reader can only partially relate the figures to Korea due to the fact that Korea was not a member of OECD at the time of producing the statistics. However, it would be of interest to mention the relevant figures for Korea. Presumably it would show that Korean tax ratios, level of VAT etc. are relatively low. In this respect one would like to hear the author's view about the likely trend in the Korean taxation system. I.e. is it likely that Korea will raise the tax level, will Korea have a similar level of income taxes etc.

When discussing the issue of raising taxes for a possible reunification one has to bear in mind what kind of enormous burden a reunification will mean in the very beginning: costs for transforming the system, costs for setting up the new infrastructure. Various estimates of Korean research institutes have shown the enormous amount of money needed. Looking at taxation from such an angle implies that we know that marginal changes in the taxation policy will not be sufficient. It will be unavoidable to collect substantial amounts of money from those who can pay. And in this respect some important decisions have to be made. Which strata of society should carry the main burden: the upper class, the middle class, the lower class, should the urban population carry more burden the rural population, should the younger or the older generation carry the burden etc. Whether we like it or not, policy makers have to ask such questions in order to come up with sound and possibly fair policies.

〈 綜合討論 〉

❖ 金廷洙(中央日報 專門委員)

간략하게 5가지 정책 제시로 질문을 대신하고자 한다.

첫째, 왜 통일 후의 세제정책이 稅金引上 方向으로만 나가느냐 하는 것이다. 增稅와 政府의 介入을 최소화해야 한다. 통일된 독일의 社會福祉 費用은 점점 증가하였다. 따라서 북한의 근거없는 기대감을 최소화해야 하며 민간에 대한 정부개입도 최소화해야 한다.

둘째, 남한의 현세제하에서 免稅範圍가 확대되고 있는 것은 바람직하지 않다. 점차 납세자의 범위가 축소되고 있다. 모든 국민이 조금이라도 納稅를 함으로써 통일을 위해 노력해야 한다. 자본주의 사회에서는 비용을 지불함으로써 복지를 얻을 수 있다는 사실이 인식되어야 한다.

셋째, 북한주민에게 稅制에 대한 教育을 하여야 한다. 북한주민이 附加價値稅, 기타 세제에 대해 반발할 수도 있다. 그러므로 세금의 개념과 세금이 정부활동을 통하여 어떻게 환원되는지를 교육해야 한다.

넷째, 통일 직후 북한주민들에게 주요 수입원이 없을 것이다. 그러므로 所得稅를 도입하더라도 과세할 세금이 없다는 점을 고려해야 한다.

다섯째, 政治的 統一 以前에 남북한간에 交易이 이루어져야 한다.

❖ Georg Ziemes(獨逸 뮌헨産業大 教授)

人的資本에 대한 언급이 있어야 한다. 독일도 동독지역의 인력이 부족하여 판사, 교

사 등이 서독에서 이동하여야 했다. 이와 관련된 비용은 통일비용 예측에 포함되지 않았다.

많은 연구가 한국에서도 독일식 통일이 반복되리라는 점을 가정하고 있다. 독일의 경우 동독이 완전히 협상력(bargaining power)을 잃고 서독에 통합되었다. 그러나 남북한 통일 과정이 반드시 유사한 형태로 전개되리라고 보장할 수는 없다. 만약에 북한의 체제가 불완전하게 붕괴된 상태에서 북한이 협상력을 가지고 남한과의 통일을 위한 협상과정에 들어간다면 남한이 북한에 무엇을 제공할 수 있는지에 대해서도 좀 더 심각하게 생각해 볼 필요가 있다.

❖ 吳然天(서울大 教授)

Klaus Funken 자문위원의 논문은 동서독의 빅뱅식 통일접근방법의 문제점을 솔직히 언급하였다는 점에 의의가 있다. 단기적으로는 同質性 回復이라는 심리적 효과가 있으나 중장기적으로 失業問題, 不況問題, 財政狀況의 惡化라는 문제가 초래되었다는 점은 우리에게 유효한 시사점을 준다. 그리고 신탁청을 통한 민영화의 실패를 政策失敗로 진단한 것은 큰 의미가 있다. 공기업의 민영화에 구조적 문제가 존재한다는 사실은 숙고할 필요가 있을 것이다.

또한 최준욱 박사가 북한지역의 經濟成長을 본 궤도로 올리는 것이 중요한 정책과제이며, 그러나 변수가 많기 때문에 이에 대한 구체적인 정책대안을 제시하기가 어렵다고 한 점에 동감한다.

統一費用 調達과 관련한 조세정책 문제는 長期的인 觀點에서 보아야 한다. 북한에서는 북한경제를 시장경제체제로 전환하는 것이 중요한 사안이다. 반면 남한의 조세정책에는 두 가지 목표가 설정될 것이다. 그 중 하나가 구체적인 통일재원을 조달할 수 있는 租稅負擔의 水準과 構造를 확립하는 것이고 또 하나는 북한경제의 성장을 촉진하고 투자를 활성화하는 租稅誘引制度를 설계하는 것이다.

김유찬 박사가 통일재원 조달방안으로, 財産課稅를 중심으로 부가가치세 등과 같은 一般消費課稅를 부과하고 그 과정에서 부가가치세 과세기초를 확대하는 방안을 제

시한 것도 중요하다. 북한지역에서의 조세정책 수립시 고려할 사항들로 제시한 재산과세의 유예, 기업소득세제 도입, 특별감가상각제도, 세액공제, 해외투자손실준비금, 북한손실준비금, 북한수입분에 대한 감면 등에 대해서도 숙고할 만하다.

그러나 북한의 시장경제로의 전환속도와 韓國經濟의 成長 潛在力과 북한경제의 가상적인 성장 잠재력, 남북한간의 사회경제적 동질화의 달성시기도 중요한 변수이다. 그러므로 서구적인 합리성에 따른 접근방법이 아니라 우리에게 맞는 방법 설정이 필요하다고 본다. 또한 남북한 產業構造 再編成과 財政要素(잠재적인 부담수준)도 고려해야지만 증세의 가능성에 대한 주도면밀한 대안 제시도 필요하다.

통일비용 조달방안에 대해 연구함에 있어서 현재의 韓國 財政支出構造의 轉換 可能性, 궁극적으로 남북한간의 인프라 네트워크를 어느 정도 그리고 어떤 속도로 접근하느냐도 재정변수 중의 하나이다. 그러나 조세부담은 정치적으로 결정되기 때문에 국민적 공감대를 형성하는 일이 중요하다. 그러나 統一費用에 관한 研究의 蓄積은 필요하며 점진적이고 종합적이면서 실증적인 연구가 이루어져야 한다.

❖ Klaus Funken(獨逸 國會 諮問委員)

본인은 독일의 기본문제에 대해 언급하였지만 가장 중요한 것은 心理學的인 측면의 문제이다. 통일 과정에서는 경제적 지표로 나타나지 않는 기타 비용도 매우 클 수 있다. 특히 심리적인 측면에서 발생하는 비용이 매우 클 수 있으므로 政策決定過程에서 이러한 측면을 고려하여야 한다.

역사를 이끄는 것은 경제가 아니라 사람인 것이다. Peter Mayer 소장이 말하였듯이 서독은 동독에서 많은 변화가 이루어져야 함을 인식해야 한다. 동독 근로자의 75%가 직업을 바꾸어야 했으며 40%가 실업상태이다. 그러나 정말로 통일로 인해 피해를 본 계층은 여성이다. 女性失業率의 심각성은 주목할 만하다.

한국의 경우 북한주민의 기대치를 감안해야 한다. 동독주민들은 통일에 대해 실망하고 사실상 서독에 의해 점령당했다고 생각하며 서독주민들은 자신들을 승자로 여긴다. 통일된 지 7년이 지났지만 이런 심리학적 문제는 아직도 존재한다. 콜 총리가

동독주민들에게 4~5년만 지나면 모든 문제가 해결될 것이라고 한 것은 실수였다. 역사의 전환기에 있는 동독주민과 서독주민은 상호간에 信賴를 형성해야 할 것이다.

❖ 尹建永(延世大 教授)

네 개의 논문에서 다루어진 이슈를 제외하고 추가적인 주제에 대해서 언급하겠다. 남북한의 1인당 GNP격차를 1 : 10으로 본다면 1 : 5로 되는 데는 매년 북한경제가 남한경제보다 5% 더 높은 비율로 성장한다 하여도 35년이 걸리고 그 격차가 75% 줄어드는 데는 70년이 소요된다. 經濟隔差가 크기 때문에 남북한이 통일된 후 단기적으로 경제가 빠른 속도로 회복될 가능성은 있다.

가장 장기적으로 고려되어야 할 문제가 私有化 問題이다. 동독은 민간부문이 북한에 비해 큰 비중을 차지하고 있었기 때문에 그리 심각하지는 않았으나 북한의 경우에는 훨씬 중요한 문제가 될 것이다. 재정과 관련하여 稅收을 증대시킬 수 있는가 하는 문제를 살펴보면, 독일의 경우 사유화를 통해 대규모의 적자를 충당하고자 하였으나 어려움이 있었다. 또 다른 사유화 방법으로는 동유럽이나 구소련의 형태가 있는데 이들 국가에서는 소규모의 경우에만 사유화를 시행하고 중요부문에서는 무상으로 所有權을 인민에게 분배했기 때문에 稅收을 調達하는 데는 큰 효과가 없었다. 따라서 사유화를 통해서 세수를 조달하기는 현실적으로 어렵고, 중요한 것은 북한의 人力과 資本, 技術을 효율적으로 사용하는 시스템을 갖추는 것이다.

統一費用이 발생되는 곳을 살펴보면 사회보장 구축, 교통·통신부문에 인프라 구축, 새로운 직업에 적응하도록 하기 위한 재훈련교육프로그램 마련, 보건·의료서비스부문, 공공행정 부문 그리고 특히 고용인센티브나 투자인센티브와 같은 인센티브 제공 등이다. 이에 대해서는 북한주민의 남한으로의 移住問題도 함께 고려하면서 정책목표를 설정해야 할 것이다.

통일비용 조달방안 중 동의하는 부분은 자본소득과세보다는 勤勞所得에 대한 課稅가 좀더 중요한 역할을 할 것이고 不動產에 대한 課稅가 상당히 클 것이라는 점이다.

인센티브 중 투자인센티브가 더 중요하다고 생각하는데, 자본이 부족한 북한에 대

한 투자는 새로운 기술도입 등을 수반하고 양질의 고용을 창출할 수 있기 때문이다. 고용인센티브로는 임금인상보다는 再教育이 중요하다. 이런 정책이 효과적으로 수행될 수 있는 남한의 인프라를 갖추는 것도 중요하다.

통일비용 조달방안 중 세수 이외에 政府負債를 통하여 재원을 조달하는 것이 중요하다. 남한경제에서 長期債權市場을 육성하는 것이 중요한 정책과제라 할 수 있다.

❖ 李鎮淳(崇實大 教授)

그동안 統一問題에 대한 많은 논의들이 감상적이거나 막연하였던 데 비해, 이번 심포지엄에서 발표된 논문들은 커다란 진전을 보인 것으로 평가된다. 특히 한국조세연구원의 최준욱 박사와 김유찬 박사의 논문은 사례 깊고 치밀한 분석이 돋보인다.

통일이 언제 그리고 어떤 식으로 이루어질지 알 수 없는 상황에서, 더욱이 통일정책에 대해 명확히 확정된 것이 없는 상황에서 統一費用을 推定하는 것은 대단히 어려운 과제이다. 그럼에도 불구하고 최 박사는 주의 깊고 체계적인 분석을 시도하였다. 여기에 다음과 같은 몇 가지 사항을 추가적으로 고려하여야 한다고 본다.

통일이 이루어질 경우 야기될 것으로 예상되는 일차적 문제는 남북한간 커다란 所得隔差로 인해 북한으로부터 남한으로 대규모의 인구이동이 일어날 것이라는 점이다. 남하한 북한주민들은 일자리를 찾아 주로 대도시로 집중할 것이고, 그로 인해 이미 飽和狀態에 있는 남한의 도시문제는 극도로 심화될 위험이 있다.

통일 후 독일정부는 동서독간의 貨金隔差로 인한 대규모적인 인구이동을 방지하기 위해 동독에의 사회간접자본 투자, 민간투자에 대한 조세지원 및 보조, 직업훈련, 임금보조, 사회보장 등에 막대한 統一費用을 지불하였다. 최 박사가 지적했듯이 북한자산의 사유화 과정에서 북한주민에게 주택, 농지, 공장 등의 所有權을 分配함으로써 인구이동을 억제하는 것은 역부족일 것으로 보인다.

기업입지로서 북한의 比較優位를 개선하기 위해서는 낙후되고 황폐화된 도로, 교량, 철도, 항만, 용수 등 社會間接資本을 전면적으로 재구축하여야 할 것이고, 여기에는 막대한 재정자금이 소요될 것이다. 최 박사는 연간 100~200억달러(10~20조

원)로 統一費用을 추정하고 있으나, 그 근거를 구체적으로 밝히지 않고 있어 타당성 여부를 판단하기 어렵다.

한국조세연구원의 최 박사나 김 박사 모두 통일비용 조달을 위해 消費課稅, 특히 附加價値稅의 強化方案을 권고하고 있다. 명시적으로 밝히고 있지는 않지만, 부분적으로 독일의 경험을 고려하고 있는 것 같다. 그러나 서구의 경우 증대되는 복지비용을 종래의 소득과세에 의해 조달하는 데 한계가 있어 부가가치세를 도입한 것으로 볼 수 있다. 그리고 글로벌화된 세계경제에서 資本과 高級勞動力의 移動性이 높아진 것은 사실이나, 문제는 국가간의 相對稅率이다. 우리나라의 경우 개인소득세 세수는 총세수 및 대GDP 비율면에서 선진국들에 비해 훨씬 낮은 수준이므로 이론적·포괄적 소득세에 접근시킬 경우 상당한 세수를 추가적으로 확보할 수 있을 것이다. 그리고 각종 租稅特惠 措置들의 집합체인 租稅減免規制法을 廢止하여 과세기반을 확대함으로써 한계세율의 인상 없이도 상당한 규모의 추가적인 稅收確保가 가능할 것이다.

❖ 金仲秀(韓國租稅研究院 院長)

심포지엄을 마치며 간단하게 감사의 마음을 전하고자 합니다. 특히 멀리 독일에서 심포지엄을 위하여 이곳에 오셔서 獨逸의 經驗과 한국통일에 대한 示唆點에 관하여 많은 유익한 말씀을 해주신 Klaus Funken 위원과 Georg Ziemes 교수에게 진심으로 감사드립니다.

우리 민족의 염원인 南北韓 統一을 이루기 위해서는 우리가 극복해야 할 많은 문제가 있습니다. 특히 租稅政策 분야에서는 통일비용의 조달과 통합 후의 경제활성화라는 정책목표의 달성을 위한 준비가 필요하며 統一과 관련된 租稅政策은 글로벌화된 새로운 경제환경 속에서 검토되어야 할 것입니다.

이번 심포지엄에서 논의된 내용은 한국이 통일될 때 租稅政策 樹立의 밑거름이 될 것이라 생각합니다. 앞으로도 한국조세연구원은 이 분야에 관한 연구를 계속할 것을 약속드리며 이만 토론을 마감하겠습니다. 감사합니다.