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AS MIGRAÇÕES INTERNACIONAIS E O DESENVOLVIMENTO DOS PAÍSES DE ORIGEM

Impactos e Políticas

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AS MIGRAÇÕES INTERNACIONAIS E O DESENVOLVIMENTO DOS PAÍSES DE ORIGEM: IMPACTOS E POLÍTICAS

INTERNATIONAL MIGRATION AND SENDING COUNTRY DEVELOPMENT: IMPACTS AND POLICIES

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Acronyms and Abbreviations

ADB – Asian Development Bank
CEE – Central and Eastern European
DAC – Development Assistance Committee
ECLA – Economic Commission for Latin America
FDI – Foreign Direct Investment
GCIM – Global Commission on International Migration
GDP – Gross Domestic Product
HTAs – Hometown Associations
IMF – International Monetary Fund
IOM – International Organisation for Migration
LDCs – Least Developed Countries
MDGs – Millennium Development Goals
MFIs – Micro-Finance Institutions
MIDA – Migration for Development in Africa
NELM – New Economics of Labour Migration
ODA – Official Development Assistance
OECD – Organisation for Economic Cooperation and Development
PPP – Purchasing Power Parity
PRSPs – Poverty Reduction Strategy Papers
TFP – Total Factor Productivity
TOKTEN – Transfer of Knowledge through Expatriate Nationals
UK – United Kingdom
UN – United Nations
UNDP – United Nations Development Programme
UNHCR – United Nations High Commissioner for Refugees
WTO – World Trade Organisation

PREFÁCIO

Na última década multiplicaram-se as publicações sobre a relação entre migrações e desenvolvimento. Parte deste aumento tem a ver com o grande interesse que o estudo das migrações tem vindo a despertar. A clara contradição entre um mundo globalizado e a persistência de fortes desigualdades entre países, por um lado, e a rejeição das migrações por parte da maioria dos países receptores, por outro, têm gerado tensões cuja evolução é dificil de descortinar. A curiosidade sobre este tema resulta ainda de uma ideia que foi ganhando adeptos e segundo a qual os movimentos migratórios estariam a gerar efeitos benéficos sobre o desenvolvimento das sociedades de origem.

A maioria dos trabalhos publicados ao longo do último decénio adopta uma visão optimista. Isto é, as migrações, quando consideradas no sentido de migração económica, resultam sobretudo da ausência de desenvolvimento e, por conseguinte, seriam responsáveis pela reposição de algum equilíbrio. De igual modo, estudos recentes têm destacado que a sinalização de um círculo virtuoso deste tipo não é nova. Também nos anos 1950 e 1960, algumas visões económicas do desenvolvimento acreditaram que as migrações poderiam atenuar as assimetrias regionais, seja deslocando o factor trabalho para as regiões onde ele é mais produtivo, seja transferindo o rendimento e aumentando o investimento na origem, através das remessas. Porém, na actualidade, as condições que envolvem os fluxos mudaram e terão amplificado fortemente o seu impacto.

Tem sido destacado que o aumento pronunciado das referências e o seu tom generalizadamente optimista está relacionado com o contexto teórico mais vasto e, também, com a conjuntura económica e política prevalecente. Do ponto de vista teórico, algumas novas perspectivas vieram colocar em maior relação os antigos mundos separados da origem e destino da migração. As teorias sobre transnacionalismo e diásporas reforçaram a ideia que os migrantes podem continuar a ser actores nos seus países de origem. No plano económico, o súbito aumento das remessas veio lançar um novo dado na observação dos fluxos financeiros mundiais: os migrantes são agora responsáveis por transferências volumosas, que por vezes se aproximam do investimento estrangeiro e, frequentemente, excedem a ajuda pública ao desenvolvimento. No plano político, a noção que as migrações podem atenuar alguns dos problemas do desenvolvimento é também atraente, não apenas porque permite lançar o diálogo entre os diferentes países do mundo, mas também porque, do ponto de vista das sociedades receptoras, o desenvolvimento da origem pode significar menos migrações futuras.

O trabalho de Alexandre Abreu que agora se divulga nao é apenas mais uma tese na área das migrações e desenvolvimento. Faz parte, pelo contrário, do muito reduzido conjunto de publicações que, nos últimos anos, tenta reflectir sobre a numerosa produção deste tipo e procura compreender o tema de forma crítica e abrangente. O autor destaca, precisamente, as condições que levaram à generalização de teses pessimistas e optimistas sobre o impacto das migrações no desenvolvimento. Como ele argumenta, as perspectivas assumidas por muitos destes trabalhos resultaram da percepção teórica mais geral na época da sua produção. Mas, mais rigorosamente, ele sublinha que a oscilação das perspectivas, bem como a existência de muitas generalizações apressadas, releva da falta de rigor teórico na construção da interrelação entre as variáveis.

Assim, este livro começa por ter dois grandes méritos. Em primeiro lugar, realiza uma excelente recensão dos contributos que se têm desenhado sobre o tema das migrações e desenvolvimento. O autor apresenta, com grande rigor e clareza, a literatura que tem sido desenvolvida nas últimas décadas sobre os vários impactos recíprocos, desde as teorias que explicam as migrações por problemas de desenvolvimento, até àquelas que salientam os efeitos benéficos e prejudiciais que os fluxos migratórios provocam nos países envolvidos. Em segundo lugar, arrisca na inovação teórica – única condição possível para o avanço científico. Para isso, delimita uma noção mais estrita de desenvolvimento – neste caso a expansão da capacidade produtiva associada ao aumento da dotação factorial; discrimina os principais momentos lógicos da migração – acto de emigração, permanência no exterior e (eventual) retorno, que poderão ter impactos diferenciados no desenvolvimento; e examina quatro tipos de factores de produção – trabalho, capital, capital humano e capital social. É com base neste modelo teórico que aprofunda as várias relações possíveis entre migrações e desenvolvimento e que revela as suas possíveis contradições ou, pelo contrário, efeitos virtuosos.

O risco de elaboração de um modelo demasiado teórico e abstracto – admitido pelo próprio autor neste texto – é compensado pela reflexão que introduz sobre o papel das variáveis instrumentais – ou, noutros termos, intervenção política. E esse é o terceiro mérito deste livro. Evitando a tentação do fechamento teórico, abre a reflexão para as modalidades de intervenção política que têm existido na área das migrações e desenvolvimento. Também aqui o raciocínio é rigoroso e exaustivo. Apresenta um vasto elenco de medidas que se têm aplicado nesta área, incluindo, por exemplo, os mecanismos financeiros de atracção de remessas, a promoção e organização da emigração por parte dos países de origem e o reforço da ligação com as diásporas. A coerência teórica resulta do facto de o autor articular estas várias medidas políticas com o modelo de relação entre migração e desenvolvimento que propôs, nomeadamente os vários momentos da migração e os vários tipos de dotação factorial.

O quarto mérito do autor é renovar a tradição de interdisciplinaridade que há muito existe nos estudos sobre migrações e sobre desenvolvimento, precisamente a partir da perspectiva onde os fechamentos têm sido mais frequentes – a da ciência económica. Partindo de uma matriz essencialmente económica, o autor reflecte sobre as realidades em jogo, mas sem nunca esquecer a multidimensionalidade inerente ao tema. O texto alia, assim, a solidez na argumentação económica à incorporação do melhor que disciplinas como a sociologia ou a geografia humana têm trazido a esta discussão.

Este livro resulta de uma dissertação de mestrado apresentada no Instituto Superior de Economia e Gestão da Universidade Técnica de Lisboa, que os autores deste prefácio tiveram o privilégio de co-orientar. Só em alguns aspectos o texto se pode designar como uma obra de juventude: na exaustividade académica dos assuntos tratados e no arrojo na inovação. Em tudo o resto revela uma grande maturidade científica. O trabalho de orientação foi, neste caso, sobretudo o prazer de seguir uma aventura intelectual. Como o próprio Alexandre Abreu admite, a reflexão que agora iniciou terá uma sequência lógica a prazo, que passa pela concretização empírica do modelo e outras investigações mais aplicadas. Dada a excelência do trabalho já desenvolvido, acreditamos que, em futuros projectos, se poderão esperar contributos do maior relevo.

João Peixoto (ISEG)
Maria Lucinda Fonseca (CEG-UL)

NOTA PRÉVIA

Ao reler esta dissertação e preparar-me para submetê-la para publicação em Março de 2008, mais de um ano após a respectiva defesa, as suas falhas e insuficiências são para mim especialmente notórias. Qualquer texto deste tipo, para mais quando redigido na fase inicial de um percurso académico, é necessariamente um "instantâneo" de um momento determinado em termos de reflexão, inserindo-se num processo de evolução pessoal que se prolonga para além dele. As minhas ideias sobre este tema têm, assim, continuado a evoluir, beneficiando das sugestões e ensinamentos de todas as pessoas com quem tenho podido falar e aprender acerca destas matérias, bem como das ideias contidas nos novos textos a que tenho tido acesso.

Por tudo isto, seriam muitas as modificações que, hoje em dia, introduziria de bom grado neste texto. Em particular, parece-me actualmente que a abordagem bastante abstracta e algo formalista que aqui adoptei é apenas satisfatória numa aproximação preliminar ao tema e que o desenvolvimento do conhecimento sobre estas questões deverá assentar, acima de tudo, no ensaio gradual de abstracções de «médio alcance» a partir da análise de processos concretos situados em contextos históricos e geográficos concretos.

Apesar de tudo isto, optei por publicar esta dissertação tal como foi entregue aos serviços académicos do ISEG-UTL e defendida perante o júri das provas de mestrado em Novembro de 2006. Embora esta opção pela fidelidade ao original tenha como consequência que o texto que aqui se apresenta é talvez menos sofisticado, completo e actualizado do que certamente seria possível, tem porventura o mérito de traduzir o reconhecimento de que nenhum trabalho científico é uma obra definitivamente encerrada, constituindo apenas um simples tijolo num edifício a erigir colectivamente através da crítica e reconstrução do trabalho de quem veio antes e da sujeição à crítica e reconstrução do nosso trabalho por parte de quem vier depois. Fica, porém, feita a advertência.

A terminar esta introdução, gostaria de manifestar o meu reconhecimento às diversas pessoas que desempenharam papéis essenciais neste trabalho, no meu percurso de aprendizagem, ou neste período da minha vida. Em particular, agradeço à minha família, especialmente aos meus pais e irmãos (Diogo, Olga, Alexandre, Maria João, Rita e Pedro), aos meus avós (a quem dedico o meu trabalho em reconhecimento pelo seu amor e exemplo) e à Ana (companheira de aventuras, ideias e ideais); aos meus orientadores e amigos, Profs. Lucinda Fonseca e João Peixoto, pelos estímulos, ensinamentos, oportunidades e paciência; aos restantes membros do júri, Profs. João Estêvão e Rui Pena Pires, pela leitura atenta da dissertação e pela discussão estimulante e exigente aquando das provas de mestrado; à Isabel André, por mais coisas do que aqui tenho espaço para nomear, mas em especial por me mostrar como o trabalho pode e deve ser um prazer; por ideias, materiais, sugestões, ensinamentos e/ou oportunidades de colaboração, a Alex Julca, Alin Chindea, António Almeida Serra, Beatriz Padilla, Carla e Filipe Charters de Azevedo, Catarina Oliveira, Cézar Guedes, Heikki Mattila, Joana Figueiredo, Joana Pereira Leite, Jochen Oppenheimer, Joel Santos, Jorge Malheiros, Jörgen Carling, Maria João Carreiro, Mário Olivares, Marta Bronzin, Mónica Goracci, Paula Vicente e Embaixador Pedro Catarino; aos meus amigos (colegas, professores e alunos) do Centro de Estudos Geográficos da Universidade de Lisboa, do Departamento de Geografia da FLUL, da Universidade Nacional de Timor-Lorosae e do Departamento de Economia da SOAS; e, finalmente, aos amigos que, não tendo sido nomeados nesta lista, são para mim igualmente importantes.

RESUMO

As ligações diversas e multifacetadas entre as migrações internacionais e o desenvolvimento dos países emissores deram origem a todo um subcampo da literatura, na intersecção das areas das migrações e do desenvolvimento, designado por "nexo migrações-desenvolvimento". Em particular, a questão central da avaliação do impacto geral positivo ou negativo da emigração sobre os processos de desenvolvimento continua a suscitar abundante controvérsia. Porém, à margem de tais conclusões gerais, numerosos governos de países emissores têm vindo ao longo das últimas décadas a implementar toda uma série de políticas com o objectivo de mobilizar o potencial da emigração e das comunidades emigradas no sentido de contribuírem para os processos internos de desenvolvimento. Assim, esta dissertação examina as relações entre as migrações internacionais e o desenvolvimento económico dos países emissores, bem como as implicações políticas dessas relações, em três momentos: em primeiro lugar, leva-se a cabo uma análise de tipo dedutivo, com base numa revisão crítica da literatura, dos impactes da emigração sobre o desenvolvimento dos países emissores tal como indiciado pelos seus impactes sobre os stocks dos diversos factores de produção (em particular, trabalho e várias formas de capital). Com vista a alcançar este objectivo, é primeiramente sugerido o recurso à "matriz migrações-desenvolvimento" – uma ferramenta analítica que é apresentada com o objectivo de auxiliar a classificação dos diversos efeitos da emigração sobre a capacidade produtiva, de acordo com o momento lógico do processo migratório em que ocorrem e com o factor produtivo afectado. Em segundo lugar, procede-se a uma tentativa de formalização das conclusões procedentes da discussão realizada nos capítulos anteriores com vista à apresentação de um versão preliminar de um modelo geral "migrações-desenvolvimento". Finalmente, apresenta-se uma recensão de algumas das políticas mais comuns e/ou interessantes que têm vindo a ser adoptadas com o objectivo de maximizar os benefícios e minimizar os custos associados ao nexo migrações-desenvolvimento. O objectivo último deste trabalho consiste, assim, em reexaminar os contributos da literatura "migrações-desenvolvimento" a partir de uma perspectiva especificamente macroeconómica, de modo a contribuir para uma melhor compreensão de um dos mais cruciais e controversos aspectos da globalização.

Palavras-Chave: migrações internacionais; países emissores; nexo migrações-desenvolvimento; movimentos internacionais de factores; desenvolvimento económico; políticas de desenvolvimento ligadas às migrações.

ABSTRACT

The various multifaceted relationships between international migration and sending country development have given rise to an entire subfield in the intersection of the migration and development literatures that has come to be known as the "migration-development nexus". In particular, as acknowledged by many leading authors in this field, the central issue of whether emigration ultimately fosters or hinders development is one that remains largely unsettled. Regardless of any such general conclusions, however, many sending country governments have in the past few decades implemented a variety of policies aimed at tapping into the potential of emigration and of their emigrated communities in order to facilitate their domestic development processes. This dissertation thus focuses on the linkages between international migration and the economic development of the sending countries as well as on the policy implications of these linkages and does this in three steps: first, a deductive analytical discussion is made of the impacts of emigration upon sending country development, as proxied by its impacts upon the stocks of the various production factors (particularly labour and various forms of capital). In order to do this, the "migration-development matrix" is introduced – an analytical tool aimed at classifying the various linkages between migration and development according to the logical moment in the migration process in which they occur as well as to the production factor undergoing changes. Second, an attempt is made to formalise the conclusions and insights from the preceding discussion in order to present a general, albeit preliminary, "migration-development model". Finally, a survey is presented of some of the most common and/or noteworthy policies that have sought to maximise the benefits and minimise the costs associated with the migration-development nexus. The overall aim is to bring the numerous insights from the migration-development literature under the light of a specifically macroeconomic perspective in order to contribute to a better understanding of one of the most crucial and controversial aspects of globalisation.

Keywords: international migration; sending countries; migration-development nexus; international factor movements; economic development; migration-related development policies.

SUMÁRIO ALARGADO

AS MIGRAÇÕES INTERNACIONAIS E O DESENVOLVIMENTO DOS PAÍSES DE ORIGEM: IMPACTOS E POLÍTICAS

Introdução, opções conceptuais e principais objectivos

A questão do impacto das migrações internacionais sobre o desenvolvimento dos países de origem tem vindo a ser alvo de atenção crescente nos últimos anos, tanto por parte da comunidade científica como ao nível da decisão política. Porém, não é um tema novo. Na verdade, a emergência do chamado «nexo migrações-desenvolvimento» como um sub-campo autónomo e florescente de produção científica – inerentemente multidisciplinar, como seria de esperar tendo em conta os dois pólos da relação em análise – não pode deixar de ser relacionado, por um lado, com a evolução do sistema migratório global no período pós-2.ª Guerra Mundial (nomeadamente, o aumento substancial dos fluxos migratórios das regiões periféricas para as regiões centrais da economia mundial: Castles and Miller 2003) e, por outro lado, com a afirmação da legitimidade da economia do desenvolvimento e dos estudos do desenvolvimento enquanto (sub-)disciplinas científicas autónomas definidas em função do seu objecto de estudo (designadamente, a especificidade das trajectórias de desenvolvimento das regiões e países do Sul, periféricos ou subdesenvolvidos).

Neste sentido, não será surpreendente que a evolução da orientação dominante ao nível da produção científica neste campo ao longo das últimas décadas tenha sido determinada em grande medida por factores «externos» a essa mesma produção científica – nomeadamente, o peso relativo da percepção dos aspectos positivos, por um lado, e negativos, por outro, associados a este fenómeno. Por outras palavras, mais do que os avanços e rupturas teórico-conceptuais, é a evolução diferencial dos impactos negativos e positivos associados à emigração proveniente dos países em desenvolvimento que tem estado subjacente à maior ou menor popularidade das visões «optimistas» e «pessimistas» dos impactos da emigração.

Concretizando um pouco mais, é possível verificar que as visões «pessimistas» do nexo migrações-desenvolvimento são historicamente anteriores e, tal como sugerido, em grande medida explicáveis pelo contexto em que foram produzidas. O desenvolvimento da teorização em torno da questão da «fuga de cérebros», ou «*brain drain*», tem assim lugar, em grande medida, nas décadas de 1960 e 1970 – época marcada pelo carácter recente da autodeterminação de numerosas nações do Sul; pelo voluntarismo e idealismo das iniciativas desenvolvimentistas implementadas ou sugeridas por, e para, mesmas nações; pela preocupação com os constrangimentos sistémicos com que esse desenvolvimento se deparava; e pelo carácter ainda incipiente das práticas transnacionais protagonizadas pelos migrantes internacionais (incluindo os fluxos de remessas).

A partir da década de 1990, pelo contrário – e pese embora o facto das migrações da periferia para o centro por parte de indivíduos altamente qualificados se terem até acentuado em resultado do acréscimo da concorrência global pela atracção de talentos –, surgem novos factores «externos» que viriam a influenciar decisivamente a orientação tanto da produção científica como da percepção valorativa dos impactos da emigração. Por um lado, o aumento da prevalência, e respectiva percepção, do desenvolvimento de identidades e práticas transnacionais por parte dos migrantes internacionais, a qual teve como consequência a rejeição gradual do «nacionalismo metodológico» e a chamada «viragem transnacional» ao nível do estudo das migrações (Levitt and Nyberg-Sorensen, 2004). Por outro, o aumento exponencial do volume global das remessas enviadas pelos emigrantes para os seus países de origem (World Bank, 2006), ao ponto de estas terem passado a ser consideradas nalguns quadrantes «o novo *mantra* do desenvolvimento» (ver Kapur, 2004).

A crescente percepção dos contributos reais e potenciais proporcionados pelas diásporas e comunidades emigrantes, apesar da respectiva ausência «física», ao nível das respectivas comunidades, regiões e países de origem constituiu assim a base efectiva sobre a qual se erigiu nas últimas duas décadas toda uma estrutura intelectual e ideológica maioritariamente optimista em relação a este fenómeno. É à luz deste contexto que se pode mais adequada e facilmente explicar o interesse crescente por parte de muitos países exportadores de mão-de-obra na mobilização económica e política das respectivas diásporas, em contraste com o relativo desprezo ou rejeição anteriormente dominantes (Ostergaard-Nielsen, 2003); a proliferação de publicações dedicadas à questão do «nexo migrações-desenvolvimento» por parte de organizações internacionais como o Banco Mundial; ou (o que não deixa de ser relevante em termos simbólicos) a realização do 1.º Diálogo de Alto Nível sobre Migrações Internacionais e Desenvolvimento na Assembleia-Geral das Nações Unidas, em Setembro de 2006 (United Nations, 2006).

Esta descrição da evolução da produção científica e ideológica neste campo, ainda que exageradamente sumária, permite por sua vez introduzir e contextualizar aquelas que são as principais características gerais da literatura científica existente sobre este tema. Em primeiro lugar, o seu carácter fortemente polarizado: da generalidade dos artigos e publicações, perpassa quase sempre e de forma bastante transparente o posicionamento do(s) seu(s) autor(es) de um ou outro lado da trincheira intelectual que divide «optimistas» e «pessimistas» das migrações. Em segundo lugar, a sua heterogeneidade e multidisciplinaridade: enquanto fenómeno social «total» com repercussões sociais, económicas, políticas e culturais, as migrações têm sido cientificamente abordadas a partir de quase todas as perspectivas ontológicas, epistemológicas, metodológicas e teóricas concebíveis: dos métodos etnográficos de cariz construtivista ao materialismo histórico, do realismo nas relações internacionais ao método hipotético-dedutivo característico da economia dominante. Finalmente, e possivelmente em resultado deste carácter eminentemente multidisciplinar e da tentação de anexação disciplinar que muitas vezes lhe está associada, a literatura científica sobre o «nexo migrações-desenvolvimento» caracteriza-se ainda por uma invulgar incidência de falácias e *non sequiturs* (exemplificados no Capítulo 3 deste trabalho).

Esta dissertação constitui, no fundamental, uma tentativa de superação parcial da polarização normativa e do carácter falacioso inerentes a muita da literatura existente, que, segundo se alega, se devem principalmente à falta de um quadro teórico abrangente e consistente. Como contributo para essa superação, é precisamente sugerido um tal quadro teórico assente nas seguintes considerações:

i) O desenvolvimento económico, na sua acepção mais plena e holística, é um processo sistémico caracterizado por inúmeros fenómenos de retroacção, causalidade cumulativa e interacção complexa e multi-escalar entre elementos internos e externos de natureza tanto estritamente económica como sociocultural e política. Por esse motivo, numa primeira abordagem, é na verdade contraproducente procurar identificar e abstrair as interacções existentes entre uma determinada variável «independente» – neste caso, a emigração – e o sistema em toda a sua complexidade. Considera-se preferível a adopção de uma acepção mais restrita de desenvolvimento económico – a expansão da capacidade produtiva associada ao aumento da dotação factorial – e a análise dos impactos da emigração a esse nível.

ii) Os efeitos das migrações internacionais sobre o desenvolvimento dos países de origem fazem-se sentir em três momentos *lógicos* do processo migratório: a emigração propriamente dita, a permanência dos migrantes no exterior e o regresso ou retorno ao país de origem. A sistematização desses mesmos efeitos segundo estes três momentos lógicos contribui para a identificação e superação de um dos principais motivos subjacentes às falácias e aos juízos normativos e apressadamente categóricos que caracterizam muita da literatura – designadamente, a ênfase exclusiva ou desproporcionada nos efeitos associados a um dos momentos (por exemplo, a «fuga de cérebros», pela negativa, ou as remessas, pela positiva). Naturalmente, da adopção de um quadro de análise assente nos vários momentos lógicos do processo migratório não decorre quer a assunção do respectivo e necessário percurso efectivo por parte de todos os casos individuais (já que muitos emigrantes nunca chegam a regressar), quer a ideia de que a conclusão de um ciclo migratório corresponde necessariamente ao final da «carreira» migratória de um indivíduo ou agregado familiar (pois eventuais fenómenos de migração circular, re-migração, etc., são conceptualizados como novos processos migratórios).

iii) A abordagem assente na dotação factorial permite sistematizar e enquadrar teoricamente a generalidade dos impactos das migrações internacionais sobre o desenvolvimento dos países de origem – da redução da força de trabalho ao impacto das remessas, do transnacionalismo migrante à «fuga de cérebros». Na medida em que privilegia intrinsecamente os efeitos ao nível dos stocks de factores produtivos, esta abordagem permite superar o outro motivo principal subjacente a grande parte das falácias identificáveis em grande parte da literatura: a confusão sistemática entre *stocks* e *fluxos* e o ensaio explícito ou implícito de análises custo-benefício assentes numa noção incorrecta, ou inexistente, de *custo de oportunidade*.

iv) A abordagem assente na dotação factorial está directamente associada ao conceito de *função de produção*, ou a ideia de que a capacidade produtiva é logicamente decomponível num conjunto de factores de produção explicitamente indicados, por um lado, e num resíduo, por outro. Este resíduo, habitualmente designado por produtividade total dos factores, ou PTF, representa de forma agregada todos os factores não especificados. Em qualquer exercício de modelização, o objectivo consiste em alcançar um equilíbrio satisfatório entre *capacidade explicativa* (para o que é necessário explicitar os factores mais relevantes) e *parcimónia* (para o que é necessário evitar a inclusão de factores menos relevantes). Neste caso, tendo em conta aqueles que são os factores de produção clássicos da teoria económica, por um lado, e a aplicação específica à questão dos impactos das migrações internacionais, por outro, a opção recaiu na explicitação de quatro factores de produção: trabalho, capital, capital humano e capital social.

v) A opção tomada no sentido da explicitação destes factores resulta também da transposição para a escala nacional das *formas de capital* teorizadas por Bourdieu (1997) como estando associadas a mecanismos específicos de perpetuação da desigualdade. (No caso deste autor, as formas de capital análogas são designadas por capital económico, capital cultural e capital social.) Esta chamada de atenção é importante na medida em que distancia a perspectiva teórica aqui adoptada da forma actualmente predominante de recurso teórico ao conceito de capital social (principalmente associada aos contributos – fortemente criticáveis e criticados – de Coleman e Putnam), em que as questões do conflito e da desigualdade são relegadas para segundo plano e em que os mais variados tipos de resultados ou consequências socioeconómicos são tautologicamente explicados por referência à dotação ou insuficiência de capital social no sentido de coesão societal.

vi) Embora isso se encontre talvez insuficientemente realçado na dissertação, existe a consciência – aqui sublinhada – de que esta transposição do modelo de Bourdieu para a escala internacional é algo problemática em termos teóricos. Em particular, porque, ao considerar implicitamente os estados ou países de origem como unidades de análise homogéneas em termos internos, obscurece os (bem reais) conflitos e mecanismos de desigualdade à escala intra-nacional. Ainda assim, considera-se que as vantagens proporcionadas pela introdução deste quadro de análise e pela selecção deste conjunto específico de factores de produção ultrapassa largamente as suas desvantagens, na medida em que permite sistematizar de forma clara, consistente e original os impactos que constituem o «nexo migrações desenvolvimento». O passo seguinte, correspondente à historicização deste modelo e à incorporação das relações sociais de produção de âmbito intra-nacional, constitui o objecto da tese de doutoramento que está actualmente a ser desenvolvida pelo autor.

A operacionalização deste quadro de análise foi efectuada mediante a introdução de uma nova ferramenta heurística: a matriz migrações-desenvolvimento (Fig. 1), resultante do cruzamento dos momentos lógicos do processo migratório com os factores produtivos que se considera determinarem a capacidade produtiva dos países de origem. O preenchimento das diversas células desta matriz, na sequência de uma recensão crítica da literatura existente no que se refere ao «nexo migrações--desenvolvimento», constituiu o primeiro objectivo teórico-conceptual desta dissertação.

Figura 1. A matriz migrações-desenvolvimento

Factores de Produção	*Momento lógico do processo migratório*		
	t_0 (emigração)	t_1 (permanência no exterior)	t_2 (retorno)
Trabalho			
Capital			
Capital Humano			
Capital Social			
PTF			

O segundo objectivo consistiu em proceder a um exercício de modelização formal do "nexo migrações-desenvolvimento" a partir da sistematização dos impactos anteriormente efectuada. Esse exercício, levado a cabo e discutido longamente no Cap. 7, parte da decomposição lógica da função de produção para representar o impacto último da emigração sobre a dotação factorial como sendo uma função de um conjunto alargado de variáveis de dois tipos: *instrumentais* (i.e., influenciáveis através da actuação política) e *paramétricas* (i.e., consideradas exógenas do ponto de vista político). Por outras palavras, o modelo aqui apresentado procura identificar os diversos canais através dos quais a emigração afecta a dotação factorial do país de origem, bem como os parâmetros e as variáveis instrumentais que influenciam a magnitude de cada um desses efeitos.

Trata-se de um modelo *lógico* e *abstracto*, em que a forma funcional da maior parte das equações não é especificada e em que os valores dos parâmetros são apresentados de forma abstracta. Isso deve-se fundamentalmente ao estado insuficientemente desenvolvido do conhecimento actual sobre essas mesmas formas funcionais e parâmetros. Ainda assim, julgamos que isso não invalida o interesse teórico deste exercício. Em primeiro lugar, porque, ainda que de forma abstracta, o modelo descreve de forma mais exaustiva do que a maior parte da literatura a generalidade dos impactos da emigração sobre a dotação factorial. É, aliás, este objectivo de exaustividade que explica o sacrifício da parcimónia e a inclusão de um elevado número de equações e variáveis. Em segundo lugar, porque as equações abstractas incluídas no modelo, na medida em que explicitam relações hipotéticas mas teoricamente fundamentadas entre variáveis dependentes e independentes, constituem a base para futuros exercícios de estimação empírica das melhores formas funcionais e dos valores das variáveis em contextos históricos e geográficos concretos. Finalmente, porque a conceptualização de uma parte das variáveis relevantes como sendo *instrumentais* permite ilustrar diversos aspectos importantes: i) o facto de não só o volume global dos fluxos de emigração, como também os respectivos impactos ao nível da dotação factorial, serem influenciáveis através de medidas de carácter político; ii) o carácter complexo e ocasionalmente contraditório dos impactos associados à mobilização instrumental de cada uma das variáveis; e iii) em consequência de (ii), a necessidade dos decisores políticos terem em conta a globalidade desses mesmos impactos eventualmente contraditórios, bem como a respectiva magnitude, sob pena de uma determinada medida de carácter político produzir um efeito último contrário ao pretendido.

No âmbito da estrutura desta dissertação, o capítulo dedicado à modelização do "nexo migrações-desenvolvimento" serve ainda um objectivo adicional, que corresponde à articulação lógica entre a parte em que se procede à análise dos impactos (Caps. 4 a 6) e o capítulo dedicado à discussão das políticas (Cap. 8). Neste último, apresenta-se uma recensão das políticas mais comuns e/ou interessantes que têm vindo a ser implementadas por parte dos governos dos países de origem dos fluxos migratórios internacionais, faz-se a correspondência entre essas mesmas políticas e as variáveis instrumentais do modelo apresentado no capítulo anterior e discute-se a respectiva racionalidade, ou falta dela, à luz desse mesmo modelo.

Este último capítulo corresponde assim à conclusão de um percurso teórico-conceptual que visa prosseguir de forma gradual aqueles que são – recapitulando – os principais objectivos da dissertação: i) introdução de um quadro teórico abrangente e consistente para análise dos impactos da emigração sobre o desenvolvimento económico dos países de origem; ii) recensão crítica da literatura existente à luz do quadro teórico anterior; iii) modelização formal do "nexo migrações-desenvolvimento" com base nessa mesma recensão crítica; e iv) identificação e discussão das principais políticas implementadas, e implementáveis, neste âmbito.

Estrutura da dissertação e resumo dos capítulos

A prossecução dos objectivos acima enunciados é, tal como referido, efectuada através de um percurso gradual correspondente aos diferentes capítulos da dissertação.

No Cap. 2, que se segue à Introdução, chama-se a atenção para o facto dos dois pólos do "nexo migrações-desenvolvimento" se co-determinarem. Nesse sentido, embora o objecto principal da dissertação consista nos impactos da emigração sobre o desenvolvimento (e não nos recíprocos), este capítulo apresenta de forma resumida as principais perspectivas teóricas existentes no que se refere às *causas* das migrações e, em particular, ao desenvolvimento (ou falta dele) como *determinante* da emigração. Estas perspectivas teóricas dividem-se em dois grandes grupos, na medida em que privilegiem o individualismo metodológico ou as proposições de cariz histórico-estruturalista na estrutura das respectivas explicações (*ver* Wood, 1982; Massey *et al.,* 1993; Peixoto, 2004). As primeiras – entre as quais se destaca o modelo de Todaro (1976) como seminal e mais influente – assumem a racionalidade optimizadora dos agentes, bem como a fluidez (mais ou menos constrangida) do trabalho como factor de produção. As migrações são explicadas essencialmente pela actuação racional dos migrantes, enquanto prestadores de trabalho, no sentido da optimização da remuneração que auferem, sendo despoletadas pelo subdesenvolvimento relativo (no sentido de disparidades de rendimento entre países ou regiões) e provocando a homogeneização global dessas mesmas disparidades.

Mais recentemente, os modelos associados à chamada *nova economia das migrações* («new economics of labour migration», ou NELM: Taylor, 1999) chamaram a atenção para o facto de, na generalidade dos contextos, a unidade de tomada de decisão migratória ser o agregado familiar – e não o indivíduo –, bem como para o facto dessa mesma decisão ser explicável não tanto pela existência de diferenciais ao nível do rendimento, como sobretudo por aspectos associados à gestão do risco ao nível do agregado familiar e à incompletude dos mercados. Particularmente nos casos em que os agregados familiares não têm acesso de forma satisfatória aos mercados «formais» de crédito e seguros, a opção no sentido da emigração de um ou mais elementos do agregado familiar pode e deve ser encarada como correspondendo a uma forma desse mesmo agregado superar restrições creditícias e proceder a uma forma de «auto-seguro» através da diversificação das fontes de rendimento, nomeadamente quando as flutuações do rendimento provenientes de cada uma das fontes não se encontram correlacionadas de forma sistemática. Consequentemente, para os teóricos da NELM, é também o subdesenvolvimento (enquanto *condição*) que explica a emigração – porém, ao subdesenvolvimento no sentido de incompletude dos mercados é dado tanta ou mais ênfase quanto ao subdesenvolvimento no sentido do acesso generalizado a níveis de rendimento inferiores.

Os mecanismos causais associados aos modelos NELM são possivelmente mais sofisticados e mais próximos da realidade da "agência" dos migrantes do que os modelos de cariz microeconómico mais simples atrás referidos. No entanto, têm em comum com estes últimos a ênfase na agência (em detrimento dos constrangimentos estruturais com que essa agência se depara) e o individualismo metodológico (as consequências de nível "macro" são extraídas por agregação da acção "atomizada" dos indivíduos ou agregados familiares, respectivamente, no quadro de mecanismos tendentes ao equilíbrio).

Em contrapartida, as explicações de carácter histórico-estruturalista privilegiam a estrutura em detrimento da agência, assentando na identificação e abstracção dos processos históricos que estão na origem da generalidade dos grandes fluxos migratórios. Salientam a tendência estrutural no sentido da procura de trabalhadores imigrantes por parte das economias avançadas do "Norte", particularmente em contextos caracterizados por uma forte segmentação dos mercados de trabalho (Castles and Kosack, 1972; Piore, 1979; Petras, 1981; Sassen, 1988 e 1991), bem como, ao nível das regiões de origem, o papel do desenvolvimento (enquanto processo) na criação de «populações desenraizadas susceptíveis de migrarem» (Massey *et al.,* 1988 e 1993).

Embora, curiosamente, não exista uma incompatibilidade de princípio entre estes dois grandes "tipos" de explicação das causas das migrações (a teoria da agência de uns não é necessariamente incompatível com a análise estrutural de outros: Massey *et al,* 1993), eles estão na prática em radical oposição em diversos sentidos: i) quanto à ênfase: nas explicações "micro" e na questão da agência no caso dos primeiros, nas explicações "macro" e na perspectiva estrutural no caso dos segundos; ii) quanto ao método: hipotético-dedutivo no caso dos primeiros, histórico e materialista no caso dos segundos; iii) quanto à conceptualização do desenvolvimento como determinante das migrações: para uns, estas últimas devem-se ao *subdesenvolvimento enquanto condição*; para os outros, ao *desenvolvimento enquanto processo*; iii) quanto às conclusões tipicamente retiradas em relação às consequências das migrações: enquanto os modelos "micro" encaram as migrações como um mecanismo homogeneizador das diferenças de "desenvolvimento" entre países ou regiões, as explicações histórico-estruturalistas consideram tipicamente que as migrações são não só provocadas *como também constrangidas* pelas dinâmicas inerentes ao desenvolvimento da economia-mundo capitalista como um todo (Petras, 1981; Wallerstein, 2004), pelo que não assumem qualquer tipo de tendência necessária para o equilíbrio ou homogeneização. Embora a questão da superioridade de um ou outro tipo de explicação seja naturalmente susceptível de debate, perfilha-se nesta dissertação a ideia de que as explicações histórico-estruturalistas se caracterizam por uma maior adequação à realidade histórica.

No Cap. 3, passa-se então à questão do "nexo migrações-desenvolvimento" em sentido estrito, i.e., aos impactos da emigração sobre o desenvolvimento dos países de origem. Para tal, começa-se por salientar algumas das características da literatura existente – nomeadamente, as já referidas nesta introdução em português, como o seu carácter marcadamente polarizado ou a forte prevalência de falácias (das quais são apresentados exemplos concretos). Alega-se que estes "defeitos" de parte da literatura se devem à ausência de um quadro teórico abrangente e coerente, após o que se apresenta a matriz migrações-desenvolvimento como contributo para a superação desses mesmos problemas.

Em seguida, nos Capítulos 4 a 6, procede-se a uma recensão crítica da principal literatura existente sobre o "nexo migrações-desenvolvimento" à luz do quadro teórico-conceptual sugerido no Cap. 3. O objectivo consiste, por um lado, em chamar a atenção para os mais relevantes resultados teóricos e empíricos existentes na literatura e, por outro, em preencher gradualmente as diversas "células" da matriz migrações-desenvolvimento. Este exercício é efectuado sequencialmente, seguindo as três colunas da matriz (correspondentes aos três momentos lógicos do processo migratório): emigração (Cap.4), permanência no exterior (Cap. 5) e retorno (Cap.6).

Os impactes ao nível da dotação factorial associados à emigração propriamente dita (Cap. 4) são tendencialmente (embora não necessariamente) negativos e dizem principalmente respeito aos *stocks* de trabalho e capital humano. Em termos agregados e algo simplistas, esses impactos dependem de um conjunto restrito de variáveis. No que se refere à dotação factorial propriamente dita, dependem essencialmente da intensidade em capital humano dos emigrantes, por um lado, e das elasticidades oferta-preço e preço-procura tanto do factor trabalho como do capital humano, por outro. Por exemplo, ao tornar-se mais escasso devido a uma eventual "fuga de cérebros", o capital humano tende também a auferir uma remuneração superior, no que constitui, tal como realçado por Stark (2005) um incentivo ao aumento da oferta desse mesmo factor através do incentivo à aquisição de formação adicional por parte dos "não-migrantes". Já as consequências da variação dos *stoks* de cada um dos factores produtivos podem ser expressos em função da sua produtividade marginal: reduções nos *stocks* de factores produtivos escassos, tipicamente caracterizados por produtividades marginais elevadas, têm consequências mais fortemente negativas em termos agregados; reduções nos *stocks* de factores produtivos abundantes, ou até excedentários – como é, segundo o modelo de Lewis (1954), o caso do factor trabalho no contexto do sector tradicional dos países subdesenvolvidos – têm consequências menos negativas, ou até nulas, ao nível do produto global.

A análise complexifica-se um pouco mais quando temos em conta alguns aspectos adicionais, tais como a heterogeneidade do trabalho e/ou do capital humano, a possibilidade de rendimentos crescentes à escala por parte do capital humano ou a existência de externalidades fortemente positivas associadas a determinados tipos de conhecimentos e competências – questões que são também discutidas mais detalhadamente neste capítulo. A terminar, apresenta-se a primeira coluna da matriz migrações-desenvolvimento, correspondente aos impactos da emigração propriamente dita, preenchida de acordo com a discussão efectuada ao longo do capítulo.

Em seguida, o Cap. 5 incide sobre os impactos associados ao segundo momento lógico do processo migratório – a permanência no exterior – e, consequentemente, sobre os efeitos das práticas transnacionais dos migrantes ao nível da dotação factorial dos países ou regiões de origem. Após uma breve discussão em torno dos conceitos de "diáspora" e "comunidade transnacional", analisa-se em primeiro lugar a questão das remessas enquanto prática transnacional de importância crescente.

A esse respeito, esclarece-se que o efeito das remessas sobre a dotação factorial depende da composição da despesa associada à *totalidade* das rondas do efeito multiplicador por elas induzido – e não, como comummente suposto, da composição da despesa associada apenas à *primeira* ronda desse multiplicador. Esta chamada de atenção é especialmente importante na medida em que diversos estudos têm no passado concluído que as remessas não se traduzem em investimento, uma vez que os agregados familiares que as recebem tendem a gastá-las em bens de consumo. Essa conclusão é falaciosa, na medida em que mesmo que as remessas sejam inteiramente aplicadas em consumo (e não em investimento), o rendimento dispendido dessa forma troca imediatamente de mãos, podendo ser pelo menos parcialmente aplicado em investimento pelos agentes envolvidos nas rondas subsequentes do multiplicador.

Em suma, o efeito global das remessas sobre a dotação de capital económico depende: i) do seu volume global; ii) do efeito multiplicador que lhes está associado; e iii) da propensão para o investimento (ou poupança, desde que o sistema bancário canalize essas poupanças para investimento) ao longo de todas as rondas desse multiplicador. Analogamente, adoptando uma acepção lata de capital humano, considera-se que o impacto das remessas ao nível da respectiva dotação depende: i) do volume global das remessas; ii) do multiplicador que lhes está associado; e iii) da propensão para o investimento em educação, formação e saúde *ao longo de todas as rondas desse multiplicador*.

A análise do segundo momento lógico do processo migratório permite, por outro lado, introduzir a discussão em torno da questão dos impactos ao nível da dotação de capital social. Este factor produtivo é aqui entendido de uma forma muito precisa, que, tal como foi atrás referido, decorre da transposição para a escala nacional do conceito de capital social teorizado por Bourdieu à escala dos agregados familiares. Tal como, em Bourdieu, as relações sociais e a participação em redes têm um valor económico e afectam a rendibilidade das restantes formas de capital detidas pelos agregados familiares, nelas se podendo metamorfosear, também aqui se considera que o transnacionalismo migrante e as redes e relações sociais que lhes estão associadas possuem um valor económico para os países ou regiões de origem, afectando a produtividade dos restantes factores produtivos e, em certas circunstâncias, neles se podendo metamorfosear.

Nesse sentido, conceptualiza-se a permanência dos migrantes no exterior como estando associada a dois efeitos "contrários" ao nível da dotação de capital social: por um lado, a passagem do tempo provoca tendencialmente a gradual obsolescência do capital social que liga os migrantes aos agentes localizados no país ou região de origem; por outro, permite a acumulação progressiva do capital social que liga esses mesmos migrantes aos agentes localizados no país ou região de destino. O efeito global ao nível da dotação de capital social da unidade geográfica de origem (i.e., ao nível das redes e relações, dotadas de valor económico, que unem os agentes localizados no país ou região de origem com os agentes "pertencentes" aos países ou regiões de destino) é uma função "multiplicativa" destes dois efeitos contraditórios: caso os migrantes mantenham ligações transnacionais efectivas com os agentes do país de origem e simultaneamente estabeleçam relações sociais "mobilizáveis" com os agentes do país de destino, o stock de capital social do país de origem sofre um aumento substancial em resultado do transnacionalismo migrante (de que é exemplo o papel das diásporas no estabelecimento de redes internacionais de comercialização de produtos do país de origem); se, pelo contrário, os migrantes cortarem rapidamente os laços que os unem aos agentes do país de origem, ou forem incapazes de estabelecer laços "mobilizáveis" com os agentes dos países de destino, o efeito do transnacionalismo migrante ao nível da dotação de capital social do país de origem será negligenciável.

A encerrar a análise do "nexo migrações-desenvolvimento" segundo a matriz introduzida no Cap. 3, o Cap. 6 discute as questões da imigração de retorno, dos seus determinantes (referidos de forma breve) e dos seus efeitos ao nível da dotação factorial. Estes últimos são em grande medida simétricos em relação aos efeitos da emigração propriamente dita (ver Cap. 3), mas dependem adicionalmente das seguintes variáveis (para além da propensão efectiva ao retorno por parte dos migrantes que se encontram no exterior): i) da dotação dos migrantes "retornados" em termos das várias formas de capital, a qual depende por sua vez das características do respectivo processo de integração durante a permanência no país de destino; e ii) da eventual especificidade dos conhecimentos e competências adquiridos no país de destino (que não "terão valor" aquando do regresso ao país de origem caso não possam ser produtivamente aplicados). Adicionalmente, considera-se que a migração de retorno provoca uma inversão dos processos (referidos nos parágrafos anteriores) relativos à dotação de capital social: o capital social que une os migrantes aos agentes nos países de destino deixa de ser acumulado e inicia um processo de obsolescência, enquanto o capital social que os une aos agentes no país de origem deixa de obsolescer e volta a ser acumulado.

O Cap. 7 consiste na apresentação e discussão do modelo formal do "nexo migrações-desenvolvimento". Essa discussão caracteriza-se por alguma complexidade, sendo difícil resumi-la em pouco espaço senão através das considerações já efectuadas nas primeiras páginas desta introdução em português. Sublinha-se, porém, que o modelo assenta na formalização dos impactos discutidos nos capítulos anteriores (4 a 6), na articulação desses impactos uns com os outros através da função de produção e na identificação de uma rede intricada de nexos causais que relacionam, em última instância, a dotação factorial (bem como o produto e o respectivo crescimento) com um conjunto de variáveis paramétricas e instrumentais. Nesse sentido, estabelece um roteiro para a futura validação e estimação empíricas das relações hipotéticas contidas em cada uma das equações de comportamento.

Um tal exercício de estimação, uma vez levado a cabo para um contexto histórico e geográfico concreto, permitiria idealmente: i) para valores dados de todas as restantes variáveis, calcular o "valor actualizado" (positivo ou negativo) de um determinado volume de emigração; ii) através da derivada desse "valor actualizado" em ordem à variável "emigração", calcular o carácter benéfico ou prejudicial da criação de incentivos (ou desincentivos) adicionais à emigração; iii) nos casos em que a derivada referida em (ii) tenha um "zero" estritamente positivo no intervalo, calcular o "nível óptimo" (para o país de origem) da variável emigração; e iv) para valores dados da variável "emigração" e de todas as restantes variáveis à excepção de uma determinada variável instrumental, calcular o impacto actualizado marginal associado ao aumento ou redução marginais dessa mesma variável instrumental e, consequentemente, aferir as consequências das diversas opções políticas existentes em relação a esta matéria. Reconhece-se, porém, que, em virtude das insuficiências e limitações estruturais que o caracterizam (assumidas e discutidas no ponto 6.3), este exercício de modelização mais não faz do que sugerir o caminho a seguir com vista à prossecução dos quatro objectivos atrás indicados.

Uma vez estabelecido o nexo teórico entre a dotação factorial e as diversas variáveis instrumentais no Cap. 7, o sétimo e penúltimo capítulo incide de forma mais detalhada sobre estas últimas, apresentando e discutindo as diversas medidas políticas susceptíveis de implementação neste campo. Procura-se, por um lado, sistematizar essas medidas através da identificação das variáveis instrumentais que lhes correspondem no modelo do Cap. 6 e, por outro, ilustrá-las através da referência a exemplos concretos da sua implementação (p.e., o programa «Transfer of Knowledge Through Expatriate Nationals», promovido pelo PNUD, ou o programa de incentivo à canalização de remessas para investimentos colectivos implementado pelo estado mexicano de Zacatecas).

Salienta-se o facto de muitas das medidas mais relevantes no que se refere à "optimização" do "nexo migrações-desenvolvimento" extravasarem largamente o âmbito da gestão dos fluxos migratórios em sentido estrito: é o caso, por exemplo, da promoção da integração dos emigrantes nas respectivas comunidades de acolhimento, da implementação de reformas ao nível da política educativa ou da promoção do retorno de emigrantes altamente qualificados através da criação de condições favoráveis à aglomeração de capital humano (p.e., através da criação de parques de ciência e tecnologia, tal como efectuado em Taiwan nas décadas de 1980 e 1990: O'Neil, 2003). Outros aspectos relevantes discutidos neste capítulo incluem: i) as "limitações estruturais" ("*capability gap*": Ostergaard-Nielsen, 2003) que caracterizam os países de origem em relação a estas matérias e que resultam essencialmente da inconsistência entre o carácter nacional da soberania dos estados e o carácter transnacional das práticas e processos associados às migrações internacionais; ii) o facto de, apesar destas limitações, existir uma vasta experiência acumulada (ainda que insuficiente avaliação comparativa) de implementação deste tipo de políticas em muitos países subdesenvolvidos e em desenvolvimento; iii) o carácter potencialmente "alienante" e consequentemente contraproducente da maior parte das políticas assentes em incentivos "negativos" (impostos, proibições, contribuições obrigatórias); iv) o carácter em geral injustificado e socialmente injusto das políticas que discriminam (positiva ou negativamente) os emigrantes e/ou os seus agregados familiares; e v) a constatação que numerosos países de origem têm vindo a efectuar progressivamente a transição de políticas assentes na «exportação de mão-de-obra e retorno» para políticas de constituição de "nações globais" (Ostergaard-Nielsen, 2003).

Apresenta-se de seguida a lista completa das opções políticas identificadas nesta recensão e discutidas neste capítulo, chamando-se a atenção para o facto de, naturalmente, a sua inclusão nesta lista não implicar que o autor do presente trabalho as advogue.

- **Promoção da emigração**
  - Gestão integrada da emigração por parte de organismos governamentais especializados, incluindo nomeadamente as seguintes funções:
    - Selecção dos emigrantes;
    - Acções de formação pré-emigração;
    - Seguros especializados;
    - Disponibilização de linhas de crédito pré-emigração;
    - Acreditação de agências de recrutamento;
    - Prestação de assistência (médica, legal, etc.) durante a permanência no exterior;
    - Salvaguarda das condições laborais através da imposição de contratos-modelo de recrutamento;

- **Retenção de emigrantes potenciais**
  - Estabelecimento de "códigos de conduta" e acordos bilaterais;
  - Imposição de uma "taxa sobre a emigração" (também conhecida como "taxa Bhagwati");
  - Incentivos positivos especificamente dirigidos aos trabalhadores altamente qualificados, particularmente no caso do sector público (melhoria das condições laborais e remuneratórias, im-

plementação de mecanismos meritocráticos de progressão na carreira e de programas de formação contínua, etc.);

- **Reforma do sistema de ensino**
  - Ênfase no financiamento público das modalidades de educação e formação associadas à aquisição de competências e conhecimentos que, ainda que sujeitos a menor procura internacional, se caracterizam por um elevado retorno social ao nível nacional (nomeadamente, através da aposta na expansão da escolaridade básica e secundária e do acesso à formação profissional, em detrimento da formação universitária);

- **Fomento dos laços efectivos e simbólicos que ligam as diásporas e comunidades emigrantes ao país de origem**
  - Introdução da possibilidade legal de dupla nacionalidade;
  - Concessão de direitos políticos plenos aos emigrantes;
  - Celebração de dias festivos nacionais junto da diáspora, criação de prémios da diáspora, implementação de programas de promoção da cultura do país de origem junto dos emigrantes de segunda geração e outras medidas análogas de carácter simbólico e ideológico;
  - Promoção de conferências da diáspora, particularmente dirigidas às "diásporas técnicas e científicas";

- **Estímulo e canalização para investimento das remessas e IDE de origem emigrante**
  - Impostos e contribuições obrigatórias;
  - Pedidos de contribuições voluntárias;
  - Contas bonificadas para emigrantes junto do sector bancário nacional;
  - Títulos do tesouro especialmente destinados às comunidades emigrantes;
  - Bonificações e outros incentivos ao IDE de origem emigrante (isenções fiscais, adopção de procedimentos simplificados, etc.);
  - Promoção do investimento em geral (política macroeconómica propícia ao investimento, "*good governance*", simplificação administrativa, investimento em infra-estruturas e bens públicos estratégicos);

- o Fomento da concorrência no mercado de transferência de remessas (redução das barreiras à entrada, promoção da "literacia financeira" dos emigrantes);
- o Desenvolvimento do sistema bancário em geral (designadamente, de modo a minimizar os níveis de entesouramento e maximizar a canalização das poupanças para investimento);
- o Incentivos genéricos à poupança, investimento e formação de capital humano (saúde, educação e formação);

- **Promoção da formação nacional de capital humano em articulação com as diásporas e comunidades emigrantes**
  - o Estabelecimento de acordos internacionais de reconhecimento de competências;
  - o Organização de conferências destinadas às diásporas técnicas e científicas;
  - o Programas de retorno temporário;
  - o Fomento da migração circular através da redução das restrições à mobilidade;
  - o Negociação com agências bilaterais de desenvolvimento no sentido de que a ajuda pública ao desenvolvimento *técnica* seja tão pouco "ligada" (isto é, contratualmente vinculada à prestação de serviços por parte de técnicos e especialistas do "Norte") quanto possível;
  - o Promoção do recurso a plataformas virtuais de disseminação transnacional de conhecimentos e competências;

- **Criação de incentivos ao retorno**
  - o Campanhas publicitárias e de informação (p.e., em relação aos mercados de trabalho e de habitação e aos sistemas de saúde e educação);
  - o Simplificação dos procedimentos administrativos;
  - o Criação de incentivos específicos (isenções fiscais, subsídios, etc.);
  - o Estabelecimento de acordos bilaterais com vista à possibilidade de transferência dos direitos adquiridos em matéria de segurança social;

- **Promoção do retorno de emigrantes altamente qualificados**
  - Criação de condições propícias à aglomeração de uma massa crítica de capital humano (p.e., parques de ciência e tecnologia);
  - Incentivos específicos ao retorno de emigrantes altamente qualificados (subsídios, isenções fiscais, etc.);

- **Assistência pós-retorno**
  - Acompanhamento e prestação de assistência ao nível da reintegração no mercado de trabalho e do acesso à habitação, saúde e educação;
  - Prestação de informação, simplificação de procedimentos e criação de incentivos à criação de empresas por parte dos emigrantes "retornados".

1. INTRODUCTION

«Migration is the oldest action against poverty... It is good for the country to which they go; it helps to break the equilibrium of poverty in the country from which they came.»
John Kenneth Galbraith, cit. in IOM (2005)

«Large-scale emigration is a very costly means of getting rid of surplus population.»
Gunnar Myrdal, cit. in Papademetriou and Martin (1991)

As illustrated by the previous introductory quotes, this dissertation is about an "unsettled" (Papademetriou and Martin, 1991) relationship: the relationship between international migration and development. It comes as no surprise that this relationship should be described as such. To begin with, both migration and development are complex and highly significant phenomena, and one of the symptoms of their social, political and economic significance is the fact that the discussion around them, in both the political and scientific arenas, is often replete with ideological arguments and normative judgements. Both involve conceptual difficulties that affect how they are scientifically dealt with and, as we shall see, when it comes to addressing the causal nexus between the two, what we find, rather than simple unidirectional causality, is a web of complex relationships that exhibit apparently different and contradictory characteristics, depending not only on the geographical and historical context, but also on the way in which those relationships are conceptualised.

Since "development" is one of the two poles in the relationship with which we shall be concerned, it is important that its meaning be rendered clear. This is an issue that is particularly familiar to the student of development studies, and which is usually addressed by way of a distinction between "economic growth" and "economic development". According to Palma (1981), the way in which this distinction is most commonly made has its roots in the theoretical production of the ECLA[1] and is based on «basically *ethical*» grounds:

> *«According to this, development did not take place when growth was accompanied by: (i) increased inequality in the distribution of its benefits; (ii) a failure to increase social welfare, insofar as spending*

1. Economic Commission for Latin America, a UN agency that in the 1960s and 1970s played a leading role in the formulation of dependency theory.

> *went to unproductive areas (...); (iii) the failure to create employment opportunities (...); and (iv) a growing loss of national control over economic, political, social and cultural life.»* (Palma, 1981:56)[2]

This is in stark contrast to Marx's original concept of development, which basically consisted in the historical progression from the ancient to the socialist, through the feudal and capitalist modes of production. In this latter framework, the progressive nature of capitalist development was of an historical rather than welfare or ethical nature.

This leaves us with the thorny question of exactly which formulation of the concept of development to choose in this dissertation, one which must be settled from an early stage for the sake of rigour. There is no simple answer to this question: as far as the development-migration nexus is concerned (i.e., the issue of how development influences migration, which we shall look into in the next chapter), it seems that, as we shall see, development regarded as sustained, sustainable and broad-based economic growth enabling the expansion of welfare and human capabilities most likely *deters* mass labour emigration[3], whereas development regarded as a process of disruptive historical change, ridden with struggle and negative consequences, most likely *causes* it. Since the central focus of this dissertation is not on the development-migration nexus, however, we can leave the discussion at this point, thereby benefiting from the more nuanced understanding of the linkages between development and migration allowed for by the various meanings of the word[4].

2. I would argue that this author's portrayal of this distinction as «basically ethical» is not necessarily accurate: both the economic analysis of welfare and the political analysis of autonomy/dependency can be the object of axiologically neutral enquiry. In any case, it is certainly true that the aforementioned necessary conditions for development – not just growth – to occur have made their way through decades of development thinking and discourse, all the way to the UN's Millennium Development Goals (MDGs), having been joined along the way by emphases on structural and institutional changes enabling the sustained expansion of output and income, concerns with environmental sustainability, and the Amartya Sen/UNDP-inspired expansion of human capabilities.
3. While certainly fostering various forms of mobility.
4. In fact, this allows for an alternative interpretation of the «migration hump», i.e., the idea (usually depicted graphically as a bell-shaped curve with income or "development" in the x axis and emigration in the y axis) according to which the level of international outmigration increases with the level of income up until a certain threshold, and only starts to decline after it (Figueiredo, 2005; House of Commons, 2004; Olesen, 2002; Lucas, 2005). The usual interpretation for the migration hump has to do with the fact that people need to mobilise resources in order to migrate, and are therefore incapable of doing so up until the level of income starts to grow at the economy level, while no longer feeling the need to do it after the economy has reached the said income threshold. Although neither the usual

Yet, the same thorny question awaits us as we move into what will be the focus of our attention throughout most of this dissertation, i.e. the migration-development nexus, or the issue of how migration facilitates or hinders development. Hence, throughout the rest of this dissertation, I have opted for a concept of development that it is in fact closer to economic growth. As shall be explained in further detail, one of the aims of this dissertation is to look at the migration-development linkages described in the literature in terms of how migration affects the stock of the various production factors at the sending country's disposal. It is *not* an empirical or quantitative enquiry into the relationship between actual income or growth and actual emigration; rather, it is a logical examination, based on available theories and evidence as well as on deductive reasoning, of how the various aspects of international migration affect the sending countries' productive capacity, as expressed by their stock of productive factors.

How does this relate to the other aforementioned concepts of development? It is not unrelated to the, let us say, Marxian concept, insofar as in this latter deterministic framework the historical progression from stage to stage depends upon the full unfolding of a society's productive forces within a given mode of production[5]. And it is not unrelated to the idea of development as sustained economic growth, either, insofar as the emphasis, within the perspective adopted in this dissertation, is less on the temporary income-increasing or decreasing effects of migration than on its more structural impacts upon productive capacity. However, bearing in mind that, from an analytical point of view, the more ethically engaged concept of development usually requires economic growth as a condition for development *along with* a number of other necessary conditions basically to do with the expansion of human welfare and capabilities, it follows that a thorough analysis of the migration-development nexus from that point of view would require not only a look into the relationships between international migration and productive capacity (as I shall attempt to do) but also a comprehensive examination of the linkages between migration and the ability of a society to translate that productive capacity into welfare and

explanation nor the conjecture presented above are likely to miss the point entirely, it is the "natural" assumption of the direct relationship between the country-wide level of income and the ability of individual potential migrants to mobilise resources that seems most unsatisfactory about the former. See Lucas (2005) for three other alternative explanations to the two presented here and Olesen (2002) for a discussion of the «migration band» (a cross-country estimation of the critical PPP per capita income thresholds at which a rise in income will start to bring about an increase in emigration – tentatively estimated at US$1,500 – and, conversely, its decrease – estimated at US$8,000).

5. Marx's original formulation, in one of his passages in A Contribution to the Critique of Political Economy (cit. in Palma, 1981:25) was «No social order ever disappears before all the productive forces for which there is room in it have been developed (...)».

human development (which I refrain from trying). So why does the title of this dissertation include the expression "sending country *development*" instead of "sending country *growth*"? The explanation, though certainly not immune to criticism, has to do with the fact that virtually all the literature on the sort of issues that will be the focus of our attention – remittances, the brain drain, migrant FDI, labour market impacts, and so forth – refers to the larger subject at hand as the "migration-development nexus" or at least indicate these two as being the poles of the relationship under scrutiny (to name but a fraction of the possible references: House of Commons, 2004; Nyberg-Sorensen *et al*, 2002; Massey *et al.*, 1998; Papademetriou and Martin, 1991). Having decided to keep with this tradition, I must therefore make it clear that it is *economic* development (in the narrow sense of an expansion in productive capacity) that we shall be mostly concerned with.

A few words are also in order so as to render clear the reason why I have decided to restrict my attention to international migration, instead of addressing both internal and international migration or, better yet, carrying out an integrated analysis of the two as recommended by authors such as Skeldon (1997). These authors recommend this latter option for reasons having to do with the fact that internal and international migration are not different or separable phenomena, but rather two forms, or manifestations, of the same phenomenon. This would seem particularly sensible from an historical-structuralist perspective (see Chapter 2), according to which neither the expansion of capitalism nor the consequences of that expansion (migration in particular) are necessarily *international* issues, instead taking place within the same country *as well as* crossing national borders. Moreover, as stressed by several authors, it is often the superposition of redrawn national borders upon previously existent migration systems – as has occurred in the countries of the former Soviet Union or in various regions across Africa –, that gives certain migration flows its international character (id, ibid; Castles, 2005). Skeldon (ibid:10) puts it best by asserting that «the distinction between internal and international migration can be one of administrative convenience rather than of any substantive difference in the nature of the flows».

Here, my reasons are threefold: i) first of all, there is indeed a schism in the literature between the authors studying international migration (be it from an economic, political or sociological standpoint) and those researching internal migration (which is most commonly undertaken by geographers, particularly under the guise of rural-to-urban migration, urbanisation processes and regional development). Clearly, the issues we shall be dealing with as impacts of migration are much more often to be found in the former of the two fields of the literature; ii) second, as indicated further on in this introduction, Chapter 8 will focus specifically on the issue of policy options at the disposal of sending country governments. Despite the increasingly transnational, even globalised, nature of many of the most relevant socioeconomic processes in today's world, nation-states remain the primary form of organised political power and national governments remain the main seat of that power. It is mainly upon national governments that falls the task (and the expectation of their constituencies) of implementing policies that promote development[6]. That is why an attempt shall be made to survey some of the most commonly suggested or actually implemented government policies under the light of the reading of the migration-development linkages presented in the preceding chapters; and iii) because the framework suggested in Chapter 4 can in fact be logically applied at any scale and for any unit of analysis (e.g. the region), even though attempts at measurement and quantification, which are often strenuous and speculative even at the international level due to the lack of available data, can become a sheer nightmare at other levels of analysis for which there is little data on in- and outmigration, let alone on its impacts. Anyway, it is mostly for reasons having to do with keeping the subject relatively narrow as well as with the possible lack of capacity on my own part, rather than with the lack of relevance or pertinence, that I have deliberately opted for a "minimalist" concept of development and sought to address the issue of international migration only.

Thus, after this introduction – which serves to present the aims and structure of this dissertation and explain some of its methodological options –, the remainder of the text is organised as follows: as already mentioned, Chapter 2 sets the stage by presenting a brief overview of the main theories of migration, paying special attention to development as a determinant of migration. It is followed by Chapter 3, which presents a framework for the analysis of the linkages between international migration and sending country development based on the "migration-development matrix" – a suggested heuristic tool that makes it possible to classify those linkages according to two analytical axes: the logical moment in the migration process with which they are associated and the input to domestic production undergoing changes as a result of migration. Chapters 4, 5 and 6 then proceed to examine each of the columns of the "migration-development

6. Of course, mostly in the sense of improving welfare, which is closest to the maximalist concept of development. This is not to say that governments necessarily seek to maximise national welfare through their actions (not to mention the eminently political dimension to defining an implicit or explicit social welfare function): not only do they act in accordance with a whole range of other rationales, it is misleading in the first place to think of states as «unitary actors» when looking into actual policies (Ostergaard-Nielsen, 2003).

matrix", i.e. exit, transnational linkages and return. This is done by way of a critical survey of the literature on each aspect of the migration-development nexus. Chapter 7 consists of an attempt to formalise the various insights gained in the previous chapters in order to produce a tentative outline of a general model to assess and describe the migration-development nexus. Finally, Chapter 8 discusses some of the policy options at the disposal of sending country governments to maximise the benefits and minimise the costs associated with the emigration of their citizens. This discussion is based on the reading of the migration-development nexus carried out in the preceding chapters.

The "mandatory research question" that drives this dissertation can be formulated as follows: how can we gain a better and more coherent insight into the relationships between international migration and sending country development and which policy implications can be drawn from there? In a world where the number of international migrants reached 175 million by the year 2000 and may now in fact be closer to 200 million, or 3% of the world's population (GCIM, 2005; IOM, 2005), furthering the knowledge of these issues is a goal that is actively being pursued not only by the governments of countries of emigration[7] – which have an obvious interest in it –, but also by the governments of many countries of immigration, e.g. by sponsoring research or setting up special committees to deal with this issue (Papademetriou and Martin, 1991; House of Commons, 2004). The reasons for this interest are not always, let us say, completely innocent. While there is often a genuinely altruistic component to industrialised countries' foreign policy (and development assistance in particular), which can lead to an interest in better understanding the developmental impacts of emigration as a means of promoting policy coherence in the field of international cooperation, on other occasions these studies are commissioned and these commissions set up with the implicit or explicit mandate of better understanding the relationship between migration and development in order to «search for mutually beneficial policies *that promote stay-at-home development*» (Papademetriou and Martin, 1991:vii; emphasis my own).

In any event, the main goal of this dissertation is to make a modest contribution to furthering our understanding of the bridges between these two major phenomena. In doing so, I shall try to avoid *a priori* standpoints and

7. Although not as much as they probably could or should: as of yet, most developing sending countries have not factored migration into their development strategies in an explicit way, as is apparent in the fact that in a survey of 17 PRSPs across Africa by Black (2004), seven did not mention migration at all and the other ten failed to mention it as an issue as far as poverty-reduction strategies were concerned.

hard-and-fast answers with little regard for variation or context: this is simply too complex and important an issue.

2. THE DEVELOPMENT-MIGRATION NEXUS

At the simplest possible level of understanding, it is apparent to everyone that development and migration should be causally linked: when people (whether as individual decision-makers or in the context of their households) decide to move elsewhere, either temporarily or as settlers, they do it in search of a better life. This is probably one of the few uncontroversial facts about (at least voluntary) migration: it is intuitive that people will generally tend to move away from those areas where they experience worse living conditions and seek to move to areas in which they will be able to live better lives, or which will allow them and their families to raise their standard of living by virtue of their temporary or permanent presence. Therefore, that migration and development are not independent phenomena is probably perceived, first and foremost, in the fact that the level of development must play some role as a *determinant* of migration[8].

However, the discussion certainly becomes more complicated as we analyse the matter in greater depth. The standard neoclassical analysis of migration (e.g., Borjas, 1989; Todaro, 1976; also Massey *et al*, 1998 and Peixoto, 2004, for an overview of migration theories), focusing essentially on the migrants as providers of labour, asserts that, as any other production factor, labour will move to where it can yield maximum returns. Within this framework, it is therefore the wage differentials between the origin and destination areas – themselves a function of the relative scarcity of labour in relation to the other production factors (capital, natural resources, etc.) – that give rise to migration. Differences between any two areas in terms of labour productivity (whether due to differences in the stock of labour itself or in that of capital or technological knowledge, for example) give rise to wage differentials that create an incentive for the labour migrant, as a rational and profit-maximising provider of labour, to move to the higher-wage areas. Of course, in a world of diminishing returns, these individual moves themselves alter the overall balance, by changing the relative scarcity of labour in both the sending and receiving areas and thereby causing the wages earned in those areas to change as well. The incentive to move, and the movement itself, will cease to exist only after enough migration has occurred in order for the relative abundance of factors to have been

8. Particularly as regards labour migration, with which we shall be mostly concerned. Other types of migration flows, such as family reunion, post-retirement "sun-seeking" migration or asylum-seeking migration, are probably more responsive to other variables.

equalised. Of course, the same would have been possible had it been capital, instead of labour, to move – only in the opposite direction.

This simple textbook-style analysis, which forms the backbone of the "push-pull" theory of migration, can be – and has been – taken a few steps further. First, by taking into account that the movement itself entails costs (both financial and psychological), which implies that income-equalizing migration cannot be expected to occur, if carried out by rational individual decision-makers, beyond the level at which the potential wage gain from migrating is more than offset by the costs of the migration process itself. Second, and in order to explain the occurrence of migration into areas where higher incomes coexist with unemployment, by selecting as the relevant independent variable the differences in *expected* real income (i.e. conditioned by employment rates, as in the Todaro model; Todaro, 1976; Massey et al, 1998), rather than the difference in real income *per se*. Third, by introducing external disturbing influences onto the model, such as restrictive immigration policies implemented by host country governments, as essentially changing the cost-benefit calculation faced by the migrant and thereby altering the general equilibrium (Massey *et al,* 1998).

Whatever the case, in explaining the causes of migration, these essentially "hydraulic" micro-based models fail to take into account some very relevant aspects of reality, and have thus proved singularly incapable of adequately explaining actual migration patterns (even if we restrict our attention to labour migration), which are certainly much more complex than mere population flows from lower- to higher-income areas in a steady move towards income equalization. The first of these aspects is that labour is not homogeneous: it has embodied in it varying levels and forms of human capital (i.e., skills and competences), besides being embedded in different social networks, all of which affect its productivity and in fact cause it to be marketed according to varying supply and demand conditions. To put it simply, there is no such thing as a single market for homogeneous labour, but rather many *segmented* markets for heterogeneous combinations of labour and human and social capital – the degree of separation between these markets a function of the level of heterogeneity between the "types" of labour. This aspect has been addressed in a particularly apt manner by the "dual" or "segmented labour market" theorists, among which Piore stands as seminal (Piore, 1979), which have focused on the way in which a specific socio-economic context – advanced capitalist societies in general, and the "global city" as their most accomplished form in particular (Sassen, 1991) – draw in unskilled workers to fill a structural demand, as well as on the causes and consequences of that process.

Another problem with the neoclassical approach to migration, as in fact with neoclassical economic theory in general, is its tendency to dismiss deviations from the perfectly fluid ideal-type of behaviour of the economic system as aberrations of secondary importance. In the case of migration, this is plain wrong. Probably the single most important factor inhibiting the fluidity of factor flows is information, or the lack thereof. Migrants, workers, and people in general live in a world of incomplete information and bounded rationality, and do not simply seek to maximize income across a range of infinite possible choices, but rather choose, from among the *combinations* of the levels of financial and psychological welfare at their disposal *with* the levels of risk attached to them (themselves a function of the incompleteness of information), those that they (or their households, depending on the relevant decision-making unit) consider to be the best choice. Quite possibly, migration is one of the fields in which it is most obvious just how central these "deviations" from the ideal-type are. The importance of pre-existing migration "chains" or "networks" in determining the current and future levels of migration between any two destinations, as well as the realization that migration flows can best be studied by taking into account the past and present linkages (be them colonial, commercial, military, cultural, etc.) that integrate origin and destination areas into "migration systems" (Massey et al, 1998), provide a clear indication of the central explanatory role of information[9] and of the fact that it is the "deviations", rather than the "ideal-type", that are of greater worth in explaining reality.

Numerous other criticisms have been levied against the standard economic treatment of migration and have spurred alternative or complementary theories. One of these theories, which has gained considerable acceptance in recent times, is the new economics of labour migration or NELM (Taylor, 1999; see also Massey *et al,* 1998), which essentially built on, and sought to overcome, two of the weaknesses of neoclassical theory: its exclusive emphasis on the *individual* rational decision-maker; and its failure to address

9. This is not to say that "oiling the wheels" of migration by easing the flow of information is the only role played by migrant networks: they also play a general facilitating role for the integration of the migrants, e.g. in the labour and housing markets of the destination areas. As for migration systems – integrated sets of sending and destination areas where, *ceteris paribus,* the propensity to migrate from the former to the latter will be greater due to historical, economic, political and/or cultural linkages –, the reasons behind this greater propensity do not lie solely in the spread of information: the aforementioned linkages themselves give rise to specific labour and population movements. However, it is clear that i) the availability of information with regard to what awaits them plays a crucial role in turning potential migrants into actual ones, as well as in the selection of the destination; ii) both migration networks/chains and integrated migration systems are characterised by the density of information flows.

the conditions in markets other than the labour market as influencing the decision to migrate. Hence, what the NELM has sought to do – in the simplest possible terms – is to cast light on the fact that in most of the cases it is the family or the household, rather than the isolated individual, that is the relevant decision-making unit, and that the decision for one or more of its members to migrate is very often brought on, and constrained by, the conditions faced by the household in a series of markets other than the labour market, such as the markets for credit, capital, futures or insurance. Migration serves to circumvent the incompleteness of these markets, since, for example, having one member away whose income fluctuations are not correlated with those experienced by the other members of the household and who is bounded by links of enforceable solidarity can in fact be regarded as a portfolio decision that allows the household to self-insure. Moreover, the income remitted by the migrant members can also help overcome local restrictions in the access to credit, and thus expand the range of investment possibilities faced by the family or household. As the NELM puts it, the foremost rationale behind the decision to migrate is very often risk diversification and improved access to markets, rather than mere income maximisation.

Both the standard economic theory of migration and the NELM are essentially micro-based theories, which seek to address the task of explaining migration by explaining the individual (or household) decision to migrate (or have its members migrate). Thus, what both the various types of models based on neoclassical theory (whether or not they include including extensions of increasing sophistication to the mere consideration of income differentials as the independent variable) and its NELM counterparts share is an exclusive focus on agency, i.e. the goals, strategies and actions of individuals. This occurs at the expense of the structure, i.e. the "macro-level" conditions that ultimately influence and constrain how those goals, actions and strategies are determined. I would argue, however, that any theory that focuses exclusively on the former while taking the latter as given or secondary can hardly aspire to provide a comprehensive and fully satisfying explanation of how and why migration occurs[10].

This is especially evident when we look at migration from an historical perspective. Arguably the single most significant migration-inducing factor throughout history, whether we refer to rural-to-urban migration or the history of international migration, is one of a structural nature, which is relegated to the "black box" of context by those theories that focus exclu-

10. At best, they can aspire to provide satisfying explanations of the decision-making process associated with migration, though oftentimes some of these explanations have paid less attention than desirable to actual empirical (sociological and anthropological) research.

sively on agency: in Marx's formulation, the shift from either the «ancient» or the «feudal» to the «capitalist» mode of production[11] (Palma, 1981). This process, whereby «non-capitalist or pre-capitalist regions (are) incorporated into the global market economy (through) the global expansion of the capitalist system» (Massey et al, 1998:35; see also Stalker, 2000), as well as its consequences in terms of the creation and perpetuation of a hierarchical system of power and dependence, is the main concern and explanatory variable for historical-structural theories, such as Wallerstein's «world systems theory», which albeit not limited to the subject of migration, provide a model for the understanding of its structural causes. Whether in the context of the internal (rural-to-urban) or international (transatlantic) migration brought about by the "enclosure" movement of the 18th century in Europe, or in that of the rural-to-urban and/or South-North migration experienced in developing countries today, historical-structural theories of migration maintain that mass migration is, first and foremost, a consequence of the creation of a «mobile population prone to migrate» due to the «penetration of capitalist economic relations into pre-capitalist societies» (Massey et al, 1998:36). This model seems to "fit" historical reality particularly well, even though it has not been free from accusations on various counts[12].

This briefest of incursions into the theories that seek to explain the *determinants* of migration (see also Massey et al, 1998; Vogler and Rotte, 2000; Afolayan, 2001; Widgren and Martin, 2002) has been in order in the context of this dissertation because it provides us with a series of concepts that we shall be drawing on in the following chapters. It also provides us with utterly antagonistic ways in which to think about how development influ-

11. Marx's original analysis was mostly based on, and concerned with, the European context. The issue of the proper transposition of his model to the so-called «backward countries» has involved a great deal of controversy among latter authors, namely within the dependency movement (Palma, 1981).
12. In particular, critics of historical-structural theories have objected against their exclusive focus on structure, without sufficient attention to agency (the argument against neoclassical analyses turned on its head); against their deterministic character; against their «lack of conceptual clarity and theoretical confusion» (Papademetriou and Martin, 1991:10); and against the fact that «(their) basic tenets do not lend themselves to conventional empirical investigation, so that their central assumptions thus are offered as articles of faith» (id., ibid.). While the first three objections deserve at least some credit, the fourth one can be dismissed quite straightforwardly: Massey et al, for example, argue that the world systems theory «yields several relatively straightforward and testable propositions» (1998:57), which indeed these authors proceed to apply to a number of macro-regional systems throughout the book, eventually reaching the conclusion that «the leading theoretical treatment of the forces that promote emigration from developing countries is world systems theory» (Massey et al, 1998:281).

ences or causes migration: according to neoclassical and NELM theories, it is (relative) *underdevelopment*, as reflected in income differentials and/or the degree of market completeness, that are at the essence of the "push-pull" effects that bring about migration; according to historical-structural theories, it is *development* itself, or the transformation of traditional structures into the capitalist mode of production, that causes migration to occur.

Since this is not the main focus of our dissertation, however, let us now leave this ever contentious issue and enter another "unsettled" one: the migration-development nexus.

3. THE MIGRATION-DEVELOPMENT MATRIX

The aim of this chapter and those that immediately follow it is to present an introductory analysis of the impacts of emigration upon the development processes of the countries of origin. This is far from a settled issue, since, as we have seen, we are not the presence of a simple unidirectional *nexus*, but rather in that of various complex *nexa*[13]. The "holy grail" of this scientific field – decisively demonstrating whether positive or negative impacts ultimately prevail – has of course eluded all those that have attempted to pursue it beyond the middle-range level. That is because such general conclusions cannot be decisively drawn by looking at the implications of migration in abstract, since international migration virtually *always* has both positive and negative consequences for the sending countries, whose relative weight is dependent on the context. Still, it is possible to take some solid steps towards a better understanding of which impacts might be felt more intensely in a given situation by analysing the various positive and negative linkages between migration and development and the factors that influence them – and by placing those nexus within an integrated and coherent analytical framework.

Indeed, it is my belief that such a coherent framework, however modest, is generally lacking in the literature on migration and development. The bulk of the literature in this field consists of either empirical analyses of specific migration-development nexus *in isolation* (e.g., remittances or the "brain drain"), sometimes in specific geographic and historical contexts, or more thorough presentations of the various types of linkages, usually drawing on anecdotal evidence for the most telling examples of each of the nexus, but without a truly successful attempt to see them in an integrated manner

13. Throughout this text, however, I shall continue to use the singular «nexus» both for the singular and the plural, following the convention from the literature.

(e.g., House of Commons, 2004; Nyberg-Sorensen et al, 2002; IOM, 2005)[14]. Occasional resort is made to rhetorical artifices (e.g., the «3 R's» of recruitment, remittances and return: Nyberg-Sorensen et al, 2002; Papademetriou and Martin, 1991; or the «5 T's» of transfers, transport, tourism, telecommunication and trade: Orozco, 2005), which nevertheless remain somewhat less than satisfactory in providing a truly integrated and coherent perspective. One of the reasons behind their less than satisfactory character, I would argue, is the fact that these rhetorical exercises, though appealing in form, are not built on solid theoretical grounds. The «3 R's» taxonomy of the developmental impacts of emigration seems to distinguish between the various effects according to the logical moment in the migration process in which they occur, but fails to take into account the fact that «recruitment» is a poor way of describing the various effects associated with the migrants" departure and, especially, that there are several important effects associated with the migrants' presence overseas other than remittances. Orozco's «5 T's», which largely consist of a list of expansionary demand-side effects brought about by emigration, in my view miss the point insofar as the most important migration-development nexus clearly concern the supply side of the economy (by causing the stocks of labour, human capital, physical and financial capital, etc. to increase or decrease) rather than its demand side. Moreover, in typical Keynesian fashion, expansionary demand-side effects will nudge the economy's actual output closer to its potential output[15], but will have little impact upon the long-term trajectory of the economy's potential output.

Having criticised some of the existing approaches, I would argue further that an integrated and coherent framework of the type that I believe to be lacking would contribute to a clearer understanding of the impacts of migration, as well as to any quantitative exercises aimed at estimating its overall positive or negative character in an actual context. My own contribution to this aim is one based on the production function – the way in which agents (usually firms, in this case economies) combine the various inputs at

14. These, of course, were the conclusions drawn after a survey of the literature that was necessarily limited by the time constraints of a work of this kind. Note that several (though minoritarian) authors, such as Ammassari and Black (2001), Massey et al (1988) or Lucas (2005), do analyse the migration-development nexus in an integrated, structured fashion, by analytically distinguishing between different forms of capital transfers and/or between the impacts of emigration, diaspora participation and return. As shall be explained further on in this text, it is the combination of these two analytical axes using the production function, as well as the attempt to outline a coherent general model based on that combination, that is arguably novel about my own approach. Skeldon (1997), while focusing less on the migration-development nexus strictly defined than on the political economy of the world migration system(s), provides a brilliant account of many of the issues discussed here.
15 Or, in the case of full employment, bring about inflation.

their disposal in order to produce output. At arguably the highest possible level of abstraction, the production factors usually considered as inputs are labour and capital. All the remaining relevant factors that impinge upon the level of output produced from a given stock of labour and capital, which include everything from the institutional setting to cultural norms and technical knowledge, are included in the residual factor referred to as Total Factor Productivity, or TFP (Miles and Scott, 2001). For our purposes, though, it is useful to bring two particular factors out of the "black box" of TFP: human capital (defined as the set of formally or informally acquired skills and competences that are embodied in labour and contribute to explaining its differential productivity) and social capital (which, in an initial approach, can be described as «networks together with shared norms, values and understandings that facilitate co-operation within or among groups»: OECD, 2001:41; see Chapter 4 for a discussion of this concept and an alternative definition).

The basic idea of this analysis is that the impact of migration upon an economy's productive capacity can be assessed by adequately describing migration in terms of its impacts upon the (present and future) stocks of the various production factors in the economy. Of course, in order for this accounting exercise to be truly accurate in assessing the overall impact of migration, it would require two things: first, that it was possible to produce accurate estimates of the stocks of such "ethereal" production factors as human or social capital, as well of their variations; second, that the actual production function, or the functional relationship between the stocks of those factors and the level of output, was known[16]. For analytical purposes, though, and as a first illustration, it is clear that the actual act of migrating can be described as primarily involving a decrease in the stocks of labour and human capital in the economy of origin (when the latter is especially significant relative to the former or to the overall stock of human capital in the economy or in some of its specific sectors, we usually speak of a "brain drain"); that money remittances can be regarded as positive flows of capital[17]; that return migration can be described as a positive flow of labour and human capital (possibly greater, in absolute terms, than the negative

16. This exercise, called «growth accounting», can usually be done only in historical retrospect and relying on the use of proxies (Miles and Scott, 2001). It should be borne in mind that all these stocks are abstractions, which invariably involve problems of definition and measurement.
17. This statement ought to be qualified right away: in reality, remittances are earnings sent from abroad that do not necessarily add to the sending country's capital stock – whether or not the remitted saved income can be considered as capital from the point of view of the economy (i.e., as an input for future production) depends on the behaviour of both the recipients (specifically, whether remittances are saved – through formal or informal means –, invested or consumed) and the agents involved in the subsequent multiplier rounds. We shall return to this issue in Chapter 4.

flow of human capital involved in the exit, both because of the formal education and training acquired overseas and because of the effect of "learning-by-doing" in more capital-intensive and technologically advanced production contexts[18]); and so on.

Table 1 (the "migration-development matrix") shows how this analytical framework can be used to describe the various migration-development nexus according to their impact upon factor endowment and to the logical moment in the migration process in which they bring about the increase/decrease in the stocks of the various factors. As shall be made clear, the idea is not so much to render possible any quantitative estimation exercises as it is to allow for a better understanding of the logical relationships involved. While a more detailed description of each of these nexus can be found in the following chapters, allowing for the cells in Table 1 to be gradually filled in, it is clear that the negative impact of migration upon factor endowment takes place chiefly at the actual moment of migration and that this negative impact is then gradually compensated for by a series of positive flows of various kinds that primarily depend upon the level of commitment towards the country of origin displayed by the emigrated communities and diasporas[19].

Table 1. The "migration-development matrix": a framework for the analysis of the positive and negative impacts of migration upon factor endowment in the various logical moments of the migration process

Productive factors impacted upon	*Logical moment in the migration process*		
	t_0 (exit)	**t_1 (presence abroad)**	**t_2 (return)**
Labour			
Capital			
Human Capital			
Social Capital			
TFP			

18. Of course, as we shall see, this is not necessarily true. The productivity of human capital is extremely dependent on the context: it is both highly complementary to specific forms of physical and other human capital and especially prone to unemployment and obsolescence (as in retirement or when the skills acquired elsewhere cannot be put to good use in the home context).
19. On the concept of diaspora, see infra, Chapter 4.

Again, it is worth stressing that the option for a factor endowment approach can be considered to leave us somewhat distant from a comprehensive assessment of the impacts of migration upon *development*. Even though, by virtue of including an all-encompassing residual (TFP), this logical decomposition must be considered *complete*, the problem lies precisely in identifying and assessing all the relevant impacts upon those factors that are not specified – and which, especially in the long run, can be highly complex and unpredictable. This is to say that even if we make the more modest option of looking into the linkages between migration and productive capacity (instead of between migration and development), it is especially difficult to estimate the effects of migration upon the intricacies and interdependencies that are present in every economy and which ultimately not only determine the total productivity of the specified factors, but also influence the future stocks of those factors.

Moreover, this is first and foremost a macroeconomic and supply-side approach, which attempts to systematize the relationships between migration and productive capacity. This is clearly distinct from addressing the relationships between migration and welfare. Even if we restrict our attention to *economic* welfare – and it is clear that migration has other positive and negative effects upon human and social well-being –, it is obvious that, in any economy, an increase in output does not necessarily bring about an increase in welfare – for example, if the resulting income distribution is such that the level of inequality more than offsets the global gains. The same can be said of the relation between migration and poverty reduction. That, however, is a weakness of the factor endowment approach – not necessarily a negative impact of emigration.

Having acknowledged the insufficiencies of this approach almost from its inception, one might be led to wonder whether it is particularly fruitful to use it in the first place. I would argue that it is, if only for analytical purposes. Though certainly less than perfect in its decomposition of the migration-development nexus, this approach has the advantage of coherence – a property that is generally lacking in the literature. Let us look at a couple of examples. The first and most obvious example of this lack of coherence in the literature consists of those pieces of research that focus exclusively on one type of linkages in isolation – for example, on the magnitude and impacts of remittances or the brain drain. These approaches miss the fact that emigration entails both positive and negative impacts from a macroeconomic point of view and that both of those types of impacts normally increase with the level of emigration. Attempts at drawing general conclusions by looking at only one side of the picture of course make for poor implicit cost-benefit analyses. In fact, from a macroeconomic point of view, emigration can be regarded as a process whereby the sending country forfeits the possibility of making use of the departing labour and human capital in the national production process, receiving various types of flows in return[20]. Consequently, one has to look at all the elements of this "transaction" if one wishes to try and assess their relative importance.

Other, more comprehensive reviews of the nexus (e.g., House of Commons, 2004; Nyberg-Sorensen et al, 2002; IOM, 2005) do take this into consideration and, accordingly, do not fail to mention at least the most important linkages involved. However, in doing this, some of them sometimes struggle with problems of coherence. Why is this? In my opinion, it is largely for lack of an integrated and integrating framework. As we have seen, even the relatively modest task of assessing the different types of effects upon the stocks of production factors is beset with all sorts of methodological difficulties. What are we to say, then, of those approaches that seek to compare direct impacts upon the stocks of those factors (e.g. the loss of skilled professionals) with effects that take the form of income flows (such as remittances)? The problem here is that in order for the comparison to be possible, one would have to compare *either* the potential flows that would have been generated by the migrants' participation in the domestic production process (and have been forfeited) with the actual flows generated by the migrants' participation in the production processes overseas and remitted; *or* the stocks of production factors with and without migration. Clearly, variations in the *stock*s of the factors cannot be compared with income *flows* in a vacuum, if only for lack of an appropriate benchmark for the opportunity cost of those factors.

At first glance, this might be considered a fairly insignificant problem: even without such a benchmark, it is generally possible to assess the relative importance of the two types of effects intuitively – especially when their respective magnitudes differ considerably, which is particularly common in partial analyses. That is why, for example, it is almost unne-

20. This might be taken to imply that sending countries – and their governments in particular – have some sort of ownership rights over the departing factors. That is obviously not the case, at least from a liberal perspective. So why should this be a concern for policy, rather than solely for the agents involved? The reason, as should be apparent from the factor endowment approach, is that migration entails externalities for the non-migrants in the sending countries, and it is therefore not only legitimate but also advisable for the governments of these countries to try and bring the phenomenon closer to a social optimum, both by seeking to influence its overall level and by encouraging its positive externalities and discouraging its negative ones. Whether or not the implicit social welfare function is taken to include the migrants themselves (see infra, Chapter 7), the fact that migration has significant impacts upon the non-migrant population is good enough a justification for policy intervention.

cessary to take compensating flows into account in order to conclude that the overall impact of three quarters of Zimbabwe's doctors leaving the country since the early 1990s (BBC News, 2005) is a negative one. Yet, the problem lies elsewhere: the failure to fully understand the relationships between stocks and flows and vice-versa can lead – and indeed has led – to erroneous interpretations of the issues. For example, it is not at all uncommon to find in the literature analyses of the brain drain that argue that the loss of skilled nationals is a «double» loss to the countries of origin: not only do these countries lose the possibility of making use of these professionals in the domestic production processes, they also lose the resources invested in their training and education. Sometimes, they go as far as to argue that there is in fact a «triple loss»: the latter two *plus* the cost of training additional professionals or acquiring the services of foreign professionals; or the latter two *plus* the fiscal loss associated with the departed professionals' potential fiscal contribution[21]. This sort of confusion between the "sunk" costs, the "current" costs associated with replenishing the stocks of the factors and the private incomes and social benefits that those factors might yield in the future is a direct result of an inadequate understanding of the relationships between factor stocks and income flows, which, I would like to argue, is in turn associated with the lack of a coherent framework for the analysis of the migration-development nexus.

Hence the call for a framework that prevents this type of confusion, by decomposing the various types of impacts according to coherent criteria and by avoiding confusing stocks with flows and vice-versa. Opting for an approach that focuses on *factor stocks* implies, for example, that in addressing remittances the emphasis shall be less on their immediate income- and welfare-increasing effects than on their contribution to the stock of physical or financial capital (which depends on the propensity to save or invest of the agents involved in the various multiplying rounds of remittance spending) or to that of human capital (which depends on those agents' propensity to invest in health and education, for example).

Finally, a few words are due in this section in order to discuss the rationale behind the decision to analyse the impacts of migration upon develop-

21. An example of such (in my view both wrong and surprising) «triple count» is provided by Ellerman (2003:31) who, on the subject of the brain drain, claims that «there is a multiple loss: the human capital, the public monies that funded the training and the later fiscal loss». While the latter example of «triple count» is most obviously wrong and rarer to be found, the former type of «double count» confusion is pervasive: for example, even specialists like B. Lindsay Lowell (2005:2) can be found to maintain, with regard to the flight of skilled professionals, that «while the sending country has financed their education, it ultimately forgoes its investments *and* other returns on migrant talents» (emphasis my own).

ment according to the logical moment in the migration process – exit, presence abroad and return – in which they occur. While its contribution to the clarity of the exposition is obvious, I am well aware of the need to bear in mind the fact that «(...) emigration and return can be seen less and less as discrete events and increasingly as part of a wider process of global mobility and international exchange» (IOM, 2005:165) and that the idea that «migration is a simple move from an origin to a destination» has been dismissed as one of the «myths of migration» (Skeldon, 1997:8). These accurate statements can be taken to mean basically two things: i) that transnational linkages are highly and increasingly important; and ii) that, in many contexts, return is less and less the end of the process and increasingly an intermediate stage before further migration. However, I would argue that neither of the two arguments compromises the validity of this approach. Transnational linkages are explicitly addressed within this framework, and its increasing importance only serves to validate the need to take them into account in an explicit manner. As for the second implication, its only consequence is the realisation that migration usually has a self-sustaining character: past migration increases the likelihood of present and future migration, at both the individual and societal levels. It does not, however, change the way in which *each* discrete migration cycle and the consequences of *each* of its logical moments can be considered to affect the economy's capacity to produce output.

Equipped with this framework, we shall now examine the main linkages between migration and development referred to in the literature – beginning with the effects associated with the migrants" exit.

4. EXIT

By definition, international migration consists of the «movement of persons who leave their country of residence or the country of habitual residence, to establish themselves either permanently or temporarily in another country». (IOM, 2005:460). The definition of the temporal, legal or other criteria that set apart temporary from permanent migration is always of course rather arbitrary. In any event, whether in the case of temporary or permanent migration, the fact is that, for the sending country and from a macroeconomic perspective, the act of migrating itself implies a (temporary or permanent) reduction in the factor endowment of that country, which is possibly compensated for through various types of impacts at later moments in time. Thus, from an analytical point of view, what is it exactly that occurs at the time of exit? First and most obviously, a reduction in the labour stock (section 4.1), with varying consequences upon the local and national output and income distribution; Second, a reduction in the stock of human capital (section 4.2) of a greater or lesser magnitude depending on the overall level of migration and on the "human capital-intensity" of the departing labour; Third, a reduction in the stocks of physical and financial capital to the extent that the migrants take capital along with them as they leave the country (section 4.3). Let us look at each of these effects in greater detail.

4.1. Labour market effects

Despite the virtually universal validity of the aforementioned general effect (that emigration brings about a reduction in the labour stock), that is not a *theoretically* necessary consequence (Lucas, 2005). This is because of two reasons: i) first, some of the people who migrate were not originally part of the labour force (whether employed or unemployed), but possibly students or housewives; and ii) because the labour supply itself is not completely rigid or irresponsive to changes: even though it is ultimately dependent upon the total population of a country in the long run, it is *also* dependent upon other factors, such as the labour force participation rate or the number of hours worked per worker. Thus, even though demographic responses to changes in the labour market take decades to enter into effect[22], the possible wage rise brought about by the initial decrease in the labour supply can, even in the short run, induce some of the economically inactive to enter the labour force, and some of those already at work to increase the number of hours worked. Moreover, it can also induce some replacement in-migration, especially to specific sectors and regions. The conclusion is that, *theoretically speaking*, emigration can in fact have no effect at all or even bring about an increase in the labour stock. Although such elastic, or "overshooting" responses seldom or never occur, this effect, which also applies to the supply of human capital (section 4.2), is worth bearing in mind in order for the impact of emigration upon the labour stock not to be overestimated.

If and when emigration does bring about a decrease in the labour supply, as it normally does, various effects occur. If we begin by assuming, for the sake of simplification, that labour is indeed homogeneous and there is a single market for it, and if we assume further that the economy is in full employment, the decrease in the labour supply will lead to an increase in wages (a distribution effect) and a reduction in the level of output[23]. This reduction in

22. Due to the so-called «demographic momentum» (Keyfitz, 1971, cit. in Kim et al, 1991).
23. For the absolute level of output not to fall, the marginal productivity of the departing labour would have to be zero or negative. The former case corresponds to the "Lewis world" of surplus labour, which we shall look into in the next few paragraphs.

the level of output is an absolute one, though, since on a *per capita* basis what we find is an increase, due to the increase in the capital to labour ratio. In this highly simplified world of homogeneous labour (i.e. without taking human capital into account or assuming that human capital is evenly distributed across all workers), and leaving aside for a moment the influence of the other relevant variables in our model (namely social capital and the all-encompassing residual), it is the capital to labour ratio that determines the marginal product of both labour and capital, and therefore their respective returns (wages and interests). Massey et al (1998:225) summarise the consequences as follows: «In the absence of a labour surplus (...), the loss of labour through emigration results, *ceteris paribus*, in a production loss to the sending region and to the functional distribution of income in favour of wages». Given the change in the capital to labour ratio, emigration leaves the workers better off at the expense of the holders of that production factor that through migration becomes relatively less scarce: capital.

What if there is indeed a labour surplus, i.e. an inability of the economy to adjust to more labour-intensive production processes so that it is incapable of fully employing all the workers in the economy[24]? This *structural* type of unemployment, consisting of «a mismatch of job vacancies with the supply of labour available» (Bannock et al, 1992) is indeed a structural feature of countless developing countries and migrant-producing areas. When this is the case – and again assuming labour homogeneity, hence its perfect substitution –, it does not matter whether those that migrate were originally employed or unemployed: provided that the volume of emigration does not exceed that of the "redundant" workers, its sole effect will be to cut down unemployment, either directly by placing them overseas or indirectly by "shortening the queue" for jobs. Since the marginal product of the unemployed labour force is zero, the opportunity cost associated with its loss to the domestic production process is zero as well (Massey *et al.,* 1998). This corresponds to the model developed by Sir Arthur Lewis, who originally applied it to rural-to-urban migration, but which under the given hypotheses holds for international migration just as well. In this framework, which must be given some credit given the pervasive character of structural un- and underemployment in numerous developing regions and countries[25], there is absolutely nothing harmful about emigration: both the migrants, the workers globally considered *and* the holders of capital are

24. Aside from frictional unemployment, i.e. that caused by «people taking time out of work being between jobs or looking for a job» (Bannock et al, 1992:432).
25. Bear in mind the creation of an uprooted population prone to migrate through the introduction of disruptive societal and technological change.

either better off or unaffected[26], and there is virtually no decrease in output – only an increase in *per capita* output and income that translates into better living conditions, as those at work now have to support a smaller number of "dependents".

This may seem strange under our approach based on the production function, which can be taken to imply that changes in the stocks of any of the specified production factors will bring about changes in the level of output, regardless of the absolute level at which those changes occur. However, it is not necessarily so: it all depends on the actual functional relationships between the variables, i.e. on the production function itself. Even though variations of the Cobb-Douglas production function (which in our case would take the form of something like $Y = TFP.\ L^{\alpha}.K^{\beta}.H^{\gamma}.S^{\delta}$, with Y = output, L = labour, K = capital, H = human capital and S = social capital) are those most commonly employed in economic modelling because of their simplicity and convenience in allowing for the mathematical expression of diminishing returns, there is no reason why the production function should not assume other forms – in particular, the existence of *branches* for which the marginal contribution of one of the factors equals zero. This is precisely the case of the "Lewis world", in which the marginal product of labour is positive up to a certain level and zero thereafter.

Two notes of caution are in order in our appreciation of the applicability of the Lewis model: the first one to underline the fact that in the context of many developing countries, the official rates of unemployment do not necessarily convey an accurate measure of the share of the labour force whose current marginal product is zero – especially considering the significance of the informal economy; the second one to highlight the fact that, as stressed by Massey *et al* (1998:225), «even when surplus-labour conditions prevail most of the year, seasonal bottlenecks may produce a marginal product of labour that is positive (...) [yielding] production declines in seasonal industries such as agriculture and construction».

What consequences can we draw from this as far as the impact of migration upon the output and growth potential of the sending country is concerned? Again bearing in mind that we are assuming all labour to be homogeneous and that we will address the issue of human capital separately, the export of labour *per se* is basically a good thing, since it improves the *per capita* capital-intensity of the economy and the *per capita* level of income. In the absence of surplus labour, the overall welfare increase benefits the workers at the partial expense of the holders of capital. As the prevalence

26. I.e., it is a Pareto-improvement, in conventional economic terms.

of surplus labour increases, so does the Pareto-optimality of migration, and in these circumstances the winners in the process are chiefly the unemployed[27]. This is the foremost rationale (alongside remittance flows) behind the active labour export policies of many developing countries, such as Turkey and the Philippines, over the past few decades (IOM, 2005; O´Neil, 2004). Much more so than the increasing contemporary interest in tapping into the diaspora as a privileged advanced outpost in the global economy, it is the political and economic interest in cutting down unemployment that has led many developing countries to turn into active exporters of labour. The brief deductive analysis that has been presented indeed supports these policy actions.

However, the problem here is that this analysis has rested on the specific assumption of perfect labour homogeneity – one that is completely untenable but for heuristic purposes. Indeed, there is no such thing as *completely unskilled* labour (all workers possess skills and competences of different types and to different degrees), nor such thing as *perfect substitution* of labour (replacing workers, especially those with specific skills, can be more or less costly and time-demanding). Moreover, even under the assumption that no human capital is lost along with the departing workers, problems of labour substitution can arise due to obstacles to internal geographic mobility[28]. That is to say, even under overall surplus-labour conditions, *regional* shortages of labour can occur that can bring down output and welfare (Ammassari and Black, 2001; Lucas, 2005).

As for the central problem of labour heterogeneity, since I have made a decision to separate for analytical purposes that which is inseparable in the real world (labour and human capital), I shall address it in the following section.

27. In the case of migration not exceeding the labour surplus, no rise in wages occurs and both the employed workers and the holders of capital are left unaffected.
28. Be them physical, institutional, economic or psychological.

4.2. The effects upon the stock of human capital

Although not one of the "classical" production factors (land[29], labour and capital), human capital, or the formally or informally acquired skills and competences embodied in labour[30], has risen in recent times to a status of central importance in explaining the differential wealth of nations. In particular, the possibility of human capital being characterised by increasing returns to scale, and the externalities it confers upon production (Stark, 2002) have led to the emergence of a new current of thought named «new growth theory», which has largely built on the seminal work of Paul Romer (1986).

Human capital is acquired by individuals through the process of learning, either through formal education and training or through "learning-by-doing" and "learning-by-watching". As such, individual investment in it (human capital formation) entails costs – both as regards the required financial resources and in terms of the opportunity cost of time. While some of this opportunity cost of time must inescapably be borne by the learning individual[31], the actual financing of the process of human capital formation is often carried out to a large extent by the state, through the public educational system. To a varying extent, this occurs in almost every country of the world, and, of course, justifiably so: not only is (at least basic) education a fundamental human right, the highly significant positive externalities associated with human capital typically cause it to be sub-optimally demanded by the individuals and sub-optimally provided by the market[32].

29. In the sense of natural resources.
30. The definition adopted in this dissertation is of course broader than that which merely includes formal education. For reasons having to do with the need to ensure the concept's capacity to fully account for the differential productivity of labour (with other forms of capital held constant), it must in fact be closest to Bourdieu's (1983:243) concept of *cultural* capital in a particular form: «the *embodied* state, i.e., in the form of long-lasting dispositions of the body and mind». Bourdieu considers that cultural capital can also present itself in the objectified and institutionalised states, which are not embodied in labour and thus have no bearing for our concept of human capital.
31. There are other agents involved in the process, of course, namely teachers and trainers, whose opportunity cost of time may be borne not only by themselves but also by all those to whom the externalities from the alternative uses of their time might possibly accrue. This is just a matter of theoretical precision, since in most of the cases few activities can give rise to such positive externalities as education.
32. Education is also a strategic empowerment tool (Friedman, 1996) and a central part of the MDGs – in sum, a merit good, or an end in itself.

One important aspect that should be borne in mind is the fact that once the process of investment in human capital has been carried out, the costs of the process cannot be recovered: not only does the ownership of that capital rest solely with the learning individual, it can from then on only be *used* or *shared* – not sold, in the sense of alienated for a price (Caraça, 2001). This amounts to saying that the opportunity costs incurred to in the past, associated with the resources spent in the training or education process, are for all purposes *sunk* costs – which, as any undergraduate student of economics is familiar with, have no bearing on the present and future resource-allocating decisions. I shall return to this issue in the discussion of the policies to address human capital flight.

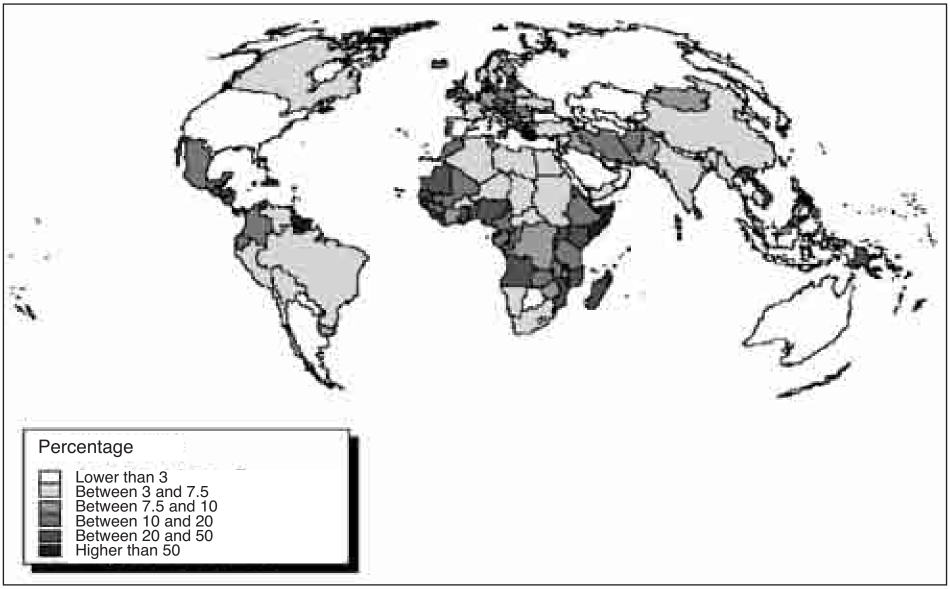
The impact of international out-migration upon the sending (developing) countries' stock of this factor, is, for a number of reasons, probably *the* most controversial issue in the discussion around the migration-development nexus: while it is undisputed that the human capital embodied in the departing workers is lost to domestic production (save for those emigrated workers who continue to generate value-added at home through transnational activities), there is certainly much less consensus on the consequences of that loss.

As already mentioned, but as might not be so clear from reading much of the migration-development literature (which, usually for justifiable analytical purposes, tends to treat unskilled labour migration and highly-skilled migration as the two sole mutually exclusive categories), there is no such thing as *completely* unskilled labour: even the most basic of jobs requires at least some training, and performance in it tends to improve with experience. Of course, this is all the more true in the case of professional activities that require substantial training and education, and it is the major source of the labour heterogeneity that prevents perfect substitution among the workers in an economy. In any event, this amounts to saying that the departure of migrant workers (if not compensated by other effects) always involves a decrease in the human capital stock of the sending country, regardless of whether or not they are university graduates or fulfil any other criterion used in defining «the highly-skilled».

Why is it important to cast light on this subtlety? First, bear in mind that, since the differences in both the amount *and* the type of the human capital owned by the workers are the main reason behind labour heterogeneity, they are also the main reason behind the problem of the difficulty of substitution in the event of migration. In the previous section, under the assumption of inexistent or evenly distributed human capital, we have seen how obstacles to internal geographic mobility can bring about regional bottlenecks in production, even in the presence of surplus labour. Now that we that have let go of that assumption, it is clear that, even in the absence of obstacles to internal geographic mobility, the timely and costly nature of training and education (hence, of worker substitution) can create sectoral bottlenecks in production. Of course, this is all the more serious the rarer the skills and competences embodied in the departing workers (the harder it is to replace them), the greater the social benefits directly generated through their professional activity, and the more "complementary" their activity is with regard to that of other workers and professionals. Typically, all of these will be greater in the case of *highly*-skilled migrants, but it does not always have to be so: for example, as regards the emigration of Pakistani masons, carpenters and electricians in the period 1977-1985 to work in construction projects in the Middle East, Mahmood (1990, cit. in Lucas, 2005:94) concludes that «in the short run, unskilled workers (were) displaced from the construction sector by the departure of their skilled counterparts». What this implies is that it is not the level of the education and training of the migrant workers *per se*, but its scarceness and strategic character in production that determines the effect of their departure upon the level of output and welfare in the country of origin.

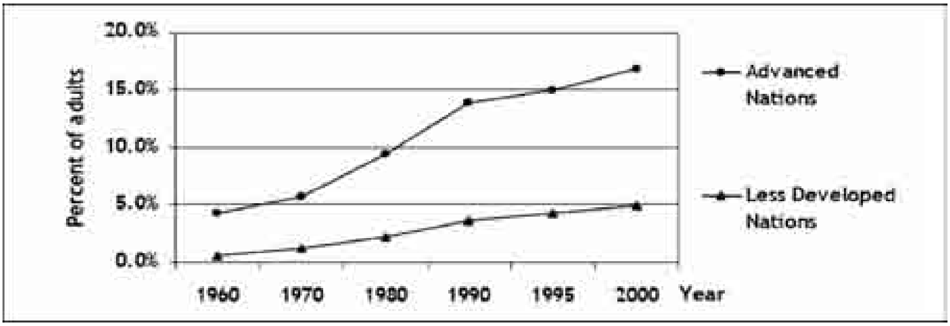
Of course, these aspects are closely correlated, which is why the focus of the discussion around the "brain drain", or the flight of human capital, has always been on highly-skilled migration. The participants in this discussion, which dates back to the 1960s, have traditionally viewed it as a curse for developing countries, whereby those countries effectively subsidize the richer, more industrialised countries of the North, namely through public spending in education (Schiff, 2005). The scale of the phenomenon is indeed both significant and increasing and is well illustrated by anecdotal evidence: «one in ten tertiary educated adults born in the developing world resided in North America, Australia or Western Europe in 2001» (Lowell at al, 2004); «sub-Saharan Africa lost 30 per cent of its skilled personnel between 1960 and 1987» (Faini, 2003, referring to Stalker, 1994); «while the total number of foreign-born individuals residing in OECD countries has increased by 51% between 1990 and 2000, the figure jumps to 70% for the highly-skilled» (Docquier and Rapoport, 2004); and, as illustrated by Figure 1, the emigration rates of skilled workers are much higher than those for the home population as a whole – particularly in the cases of Eastern and Western Africa, Southeast Asia, and Central America. The case of the Central and Eastern European countries is somewhat special, both because of the generally high rates of tertiary education among their populations and because of the migration-inducing political and economic turmoil experienced in CEE countries in the 1990s. This geographical redistribution of skills is particularly worrisome if we bear in mind the differences in the absolute endowment of human capital (as proxied by tertiary education) between advanced and less developed nations (Figure 2).

Figure 1. Emigration rates of the highly skilled, 1990-2000 (world map)



Source: Docquier and Rapoport (2004)

Figure 2. Tertiary education rates in Advanced and Less Developed Nations, 1960-2000



Source: Lowell *et al*, 2004 (original source: Barro and Lee, 2000)

What factors drive this enhanced mobility of the highly skilled, particularly from developing countries? First of all – as well as, but even more so than, in the case of unskilled migration –, the development of transports and communications, which has facilitated the flow of information and increased the degree of awareness with regard to professional opportunities available elsewhere. Second, student migration, usually to pursue tertiary education abroad (mostly in more advanced countries), with a high probability of remaining in the destination country to work after completion of their studies[33]. Third, the active recruitment[34] of foreign skilled workers by industrialised nations as part of a global competition for skills. This has taken the form of direct recruitment by public agencies and private companies to fill specific positions, as well as of points-based (and derivatives thereof) immigration regulations that encourage the entry of the skilled and educated while deterring that of the unskilled (Peixoto, 1994 and 1998; OECD, 2002). In turn, this has been linked to the evolving structural demands of the labour markets in advanced countries, particularly those arising from the pace of the information technology revolution and from the increasing need for health and caring personnel associated with the demographic changes under way in these countries. One final factor, even in the absence of such active recruitment, is the fact that migration has consistently been shown to include a self-selection component, whereby «the best and the brightest» (in Papademetriou's famous formulation: Papademetriou and Martin, 1991) exhibit greater propensity to migrate, not only because they are characterised by greater awareness of the available opportunities, but especially because they face larger expected returns from migration (in terms of pay *and* working conditions), while also being more "efficient" in the migration process itself (Chiswick, 2000).

As we have seen, the output and welfare effect of this type of migration differs across regions, countries and sectors. In particular, it has proven most detrimental in the least developed countries, especially in Africa, and particularly in specific sectors, such as health, education and science and technology (Buchan and Sochalski, 2004; Lowell at el, 2004; Saravia and Miranda, 2004; BBC News, 2001, 2002, 2003 and 2005). Why is it so? The first problem with these sectors is that training is indeed a timely and costly process, which prevents the ready substitution of the migrants. Moreover, these professionals usually occupy strategic positions that are complementary with regard to other workers and professionals involved in their sectors: for example, the entire staff of a hospital can be made redundant by the departure of the doctors (Lucas, 2005). The greatest problem with regard to the health and education sectors, however, is the fact that the total social benefit generated through the activity of these professionals (i.e., private returns *plus* positive externalities) cannot be adequately matched by

33. This is indicated as one of the factors driving the mobility of the highly skilled, in spite of the migration process occurring before the full acquisition of those skills, because it will contribute to the number of the highly skilled sending country nationals that reside overseas.
34. Vividly described by some as «poaching» (BBC News, 2002).

the willingness-to-pay[35] of the consumers in the market. These are activities in which the returns to the professionals involved do not come close to the social value of their activity, due to the incapacity of the consumers to pay for the services, and which are funded by the public sector for precisely that reason. However, due to the budget constraints experienced by developing countries (especially those undergoing structural adjustment programmes), even public subsidising cannot hope to come close to competing with the willingness-to-pay of the consumers in the richer industrialised countries when faced with a shortage of supply in their own domestic labour markets. Curiously enough, it is worth noting that, particularly in the case of highly unequal dualistic economies (where a small but extremely affluent class coexists with a vast number of poor people), this type of brain drain can occur *within* the borders of a country: a domestic brain drain (in the sense of a reduction in domestic welfare brought about by the removal of skilled workers) may occur whenever professionals (e.g., doctors) are drawn from the public to the private sector, where the total social benefit generated by their activity may be much smaller but the private returns to the professionals themselves may be higher.

As regards the science and technology sector, the problem may be best posed in a slightly different manner: although this sector is also characterised by the timely and costly training of professionals and the problem of their substitution, as well as by the significant level of externalities it confers upon the remainder of the production system, the crux of the problem may well be the increasing returns to scale that characterise human capital in this field, and which can be hindered by its removal through migration. Indeed, economic geography approaches have provided solid backing to the idea that both the formation of human capital and its productivity are extremely dependent upon its agglomeration (Antonelli and Ferrão, 2001). This idea, which provides the rationale for the creation of science and technology parks, results from a distinction between *codified* knowledge (explicit knowledge that can be conveyed through distance and take a written or digital form) and *tacit* knowledge (implicit knowledge that can only be shared through direct interaction) (id, ibid; Caraça, 2001). The removal of science and technology professionals through migration directly reduces their number and hinders the agglomeration of human capital, thereby preventing the production (dissemination) of tacit knowledge. This effect, which occurs at the edge between human and social capital, can lock the science and technology system of the sending country in a situation of stagnation, both in terms of the stock of human capital and

35. This is the technical economic term, which, in the case of poor households in developing countries, and especially as regards the health and education sectors, seems almost shocking to use: *ability-to-pay* would be more appropriate.

of its productivity (Ellerman, 2003). However, the same line of reasoning can also provide a reason for the exodus of human capital in this sector not to be detrimental in some cases: provided that the departing skilled professionals are indeed relocated in a context of much higher productivity – namely due to their agglomeration at a larger scale elsewhere –, and that the departing professionals maintain strong transnational linkages with the domestic science and technology system, the gains through the "remittance" of additional codified knowledge by these professionals may more than offset the losses in the dissemination of tacit knowledge.

So far we have reviewed some of the detrimental impacts of migration upon the stock of human capital, illustrated them using a few actual examples and discussed the most serious problems of all, which typically occur in specific regions and sectors. This is also what the traditional brain drain literature has largely focused on. However, it has traditionally failed to take certain important aspects into account. First of all, the fact that, as in the case of the effect upon the labour stock (section 3.1), the decrease in the supply of human capital will cause the domestic returns to this factor to rise, by virtue of its relative scarceness with regard to the other factors. Of course, the effects of agglomeration and increasing returns to scale work in the opposite direction[36], but it is useful to treat the two effects separately. Therefore, again as we have seen can happen in the case of the supply of labour, this effect can induce the home country population to invest in skills" acquisition to fill in the shortage created through migration. Though timely and costly to a varying extent, this effect (a first form of "brain gain"[37]) should not be overlooked. Another more immediate form of "brain gain" that is in close association to this is the possibility of foreign skilled workers responding to the incentive created by the temporary domestic mismatch between the demand and supply of skilled labour. That is to say, replacement in-migration can sometimes occur as a response to out-migration, and this applies to undifferentiated as well as skilled labour. An interesting example is provided by Farrant *et al* (2006:11), who refer to the

36. Note that, although very significant in some cases, these agglomeration and increasing returns effects to do not apply equally to all types of skills, nor across all sectors: it is especially in the science and technology field that they can be felt more intensely, but, as we have seen, human capital is far from limited to this sector.
37. Note that "brain gain", a term coined in deliberate contrast to the "brain drain", has been used with various different meanings in the literature (Stark, 2002): the looser use of the term includes all the countervailing positive effects to the brain drain brought about by migration, including remittances, return with enhanced skills and the transfer of knowledge; the more rigorous use refers strictly to the positive indirect effects upon the stock of human capital that occur in reaction to the negative direct effects.

«domino effect of Canadian doctors moving to the US and being replaced by South African doctors, who are in turn replaced by Cuban ones»[38].

Another form of "brain gain", which results from the effect of the *possibility* of migration upon human capital formation in the home country, has been the focus of the «new economics of the brain drain» literature (Stark, 2002 and 2005), also called the «revisionist» approach to the brain drain (Faini, 2003). This approach builds on the idea that, as we have seen, individual decisions to invest in human capital will not normally add up to a social optimum due to the importance of the positive externalities associated with this factor. However, given that the possibility of migration will typically increase the expected returns to such investments, and that those decisions are made by the individuals under conditions of uncertainty[39] as to whether they will actually end up migrating in the future, the revisionist approach posits that the possibility of migration alters the structure of the incentives to human capital formation and can actually «nudge the economy to a social optimum» (Stark, 2002:2). Of course, for this to happen would require that the share of the additional human capital formed in response to this incentive that actually ended up *remaining* in the home country more than offset the total direct loss of human capital through migration. Under these conditions, the "brain gain" would be larger than the "brain drain" and, insofar as the latter served as the actual «harbinger» of the former (Stark, 2005:139), one should instead speak of an «optimal brain drain» (Lowell, 2003).

This way of «turning the economics of the brain drain on its head» (Stark, 2002) has been challenged both theoretically (Schiff, 2005) and empirically (Faini, 2003), but what these "revisionists of the revisionist approach" argue is either that the theoretical conditions under which the brain drain will indeed be optimal are hard to be found[40], or that the cross-country positive

38. The more short-sighted type of neoclassical analysis would consider it impossible or irrational for this to occur: if Canadian, South African and Cuban doctors respond mechanically to incentive differentials, Cuban doctors should migrate directly to the United States, not to South Africa, and South African doctors should migrate to the United States instead of Canada. This, of course, would overlook the importance of the political-institutional determinants of migration as well as that of history and culture in shaping migration systems.
39. This uncertainty is the result of the possibility of lack of success in the pursuit of migration intentions, particularly due to restrictive immigration policies in the destination countries, as well as of the possibility of future changes in potential migrants' intentions.
40. In particular, Schiff (2005) recalls that even a "brain drain'-induced optimal "brain gain" can result in a welfare loss to the home society, if we take into account that increased private and public spending in education can bring down private and public spending in other areas, e.g., health, which also contribute to human capital formation.

correlation between the level of educational achievement and the level of skilled migration is «at best unproven» (Faini, 2003:6). What they have *not* been able to do is rebut the fact that countervailing "brain gain" effects (most likely less than optimal) always occur that partially offset the negative direct impacts of the "brain drain" and which must be borne in mind in assessing the overall impact of emigration upon domestic output and welfare – especially if we consider the big picture (which also includes remittances, technology and information flows through transnational linkages, return with enhanced skills, etc.).

4.3. Other effects

As explained in Chapter 3, one of the goals of this dissertation is to carry out a comprehensive analysis of the impacts of emigration upon sending country development as proxied by productive capacity. I have started out by analytically separating those impacts according to the logical moment in the migration process in which they occur as well as to the production factor undergoing positive or negative changes, and proceeded to examine each of the categories thus found, based on a critical review of the literature and drawing on deductive reasoning. While the most significant impacts associated with the exit itself have already been discussed, the examination of this "logical moment" would not be complete without an assessment of the implications of exit upon the remaining specified factors in the model, nor of those upon the residual (which are notably harder to identify). These types of remaining impacts are, however, relatively less important, and have accordingly been afforded significantly less attention in the literature.

Why this should be so with regard to the impacts in the realm of social capital is explained by the fact that both the formation and the obsolescence of this type of capital are a function of social interaction (or lack thereof) and do not occur at any given moment but rather throughout a given period of time. That is why, within the chosen framework, they are best examined in the following chapter. This is no longer the case as regards capital (in its more general usage, i.e., «any asset or stock of assets – financial or physical – capable of generating income»: Bannock *et al*, 1992). Any losses of capital to the sending country that are attributable to the migrants" departure should indeed be addressed in this section. However, their magnitude is usually relatively insignificant, especially when compared with some of the other impacts. As far as the export of capital is concerned, there is virtually not one reference in the literature that provides an indication of instances in which a particular group of migrants carried significant amounts of either physical or financial capital with them as they departed. This has to do with the fact that most migrants leave precisely in order to gain access to previously inaccessible resources. Of course, a much more significant capital flight, occasionally associated with the departure of its holder, can occur under the guise of foreign direct investment (FDI) originating in the sending country. However, it would be awkward and analytically debatable (to say the least) to discuss the determinants and impacts of FDI to its country of origin, by virtue of being accompanied by the departure of its holder, within the same framework as the "other" impacts of migration – a view implicitly shared by the migration-development literature. Moreover, my concern here is mostly with the impacts upon the *development* processes of *developing* countries, which traditionally have not been major sources of FDI[41].

Of more concern to this analysis are the financial resources mobilised by the migrant and/or his household in order to finance the migration and settlement process itself. As we have seen, migration is an information- and resource-demanding process, and within this framework can entail a loss of capital to the sending country whenever those resources are either spent on, or transferred to, middlemen, caterers or recruiters overseas. This issue has been receiving increasing attention from scholars[42] and policy-makers[43] alike, but the concern here is mostly with the vulnerability and welfare of the migrants in a particularly sensitive moment, rather than with the usually negligible absolute loss of capital to the sending country.

As for the avowedly very difficult task of assessing those impacts that fall under the residual category – TFP –, I will tackle it in a very superficial manner, and begin by elaborating on the notion of total factor productivity, which albeit all-encompassing is most usually considered to have at its core the cultural, institutional and political dimensions (Miles and Scott, 2001). Applying theories of political, cultural and institutional change to the field of migration, and particularly examining the causal relationships between the latter and the former, is a matter of great complexity that would require a theoretical framework and a series of heuristic tools that clearly fall outside the reach of this dissertation. This is why both in this section and in the corresponding ones for the subsequent logical moments,

41. Even though this is changing dramatically, albeit not as a result of migration (World Bank, 2005).
42. Particularly within the ambit of research on human smuggling and trafficking activities.
43. For example, as part of its extensive regulation of the labour export industry, the Filipino government has made it a mandatory requirement for licensed recruitment agencies not to command more than a month's worth of the migrant's salary as a placement fee – even though many are known to circumvent the law (O'Neil, 2004; IOM, 2005).

I shall not go any further than pointing out some of the most likely or obvious *a priori* impacts.

As regards exit, this shall include but two: the potential impact of large-scale out-migration upon inter-state relationships and the domestic political impacts of departure in a significant scale. Insofar as the first one is concerned, the issue mostly revolves around the potential for dissention between sending and receiving countries over what many political factions and groups in the latter consider to be a threat to their sovereignty and national identity. This is driven mostly by extra-economic considerations, since the overall economically beneficial character of immigration, especially for industrialised countries experiencing accelerated ageing processes leading to present and future shortages of labour, by and large turns labour inflows into a solution (though possibly an insufficient one), rather than a problem (UN, 2000). Yet, those extra-economic considerations are the same that have mostly prevailed up until now in international relations, and which have led us to the current state of affairs as far as population mobility is concerned – a state of affairs characterised by some as a «global apartheid» (Richmond, 1994). Their importance should therefore not be underestimated. Of special concern to developing countries of emigration is the possibility that industrialised host countries might make their future aid flows conditional upon the sending countries 'governments' success in self-limiting emigration[44].

As for the political impacts of a domestic nature, a rough *a priori* analysis will in fact have to take into consideration two opposite kinds of first-order consequences: emigration on a sufficiently large scale can be viewed either as a potential stimulus for the home government to implement structural changes in reaction to the unfavourable "voting with their feet" by a significant share of the population; or as a mechanism through which the social and political pressures commanding those changes are removed, thereby allowing governments to postpone them[45]. Whichever of the two prevails is dependent upon a host of political factors, not the least of which are the type and characteristics of the sending country's political regime. Although some authors argue adamantly that the latter prevails over the former, especially in the case of countries with an incipient middle class and signi-

44. As suggested by Prime-Ministers Blair of the United Kingdom and Aznár of Spain in the European Summit of 2002 in Seville, to the dismay of many, including Blair's Minister for International Development Claire Short (BBC News, 2002a).
45. Ellerman (2003:17) draws on Albert Hirschman's classical distinction between exit, voice, and loyalty (a taxonomy of responses to decline in firms, organisations and states) to argue that emigration can be regarded simply as exit, or as exit which «*can* be itself a form of voice».

ficant highly-skilled migration, the positive or negative relationship between emigration and political change remains to be proven. This, however, necessarily falls outside the scope of this dissertation.

Throughout this chapter, we have reviewed the main impacts of the "exit" moment of emigration upon the sending countries' stock of productive factors. These have included significant labour market effects, possibly even more significant "brain drain and gain" consequences, minor impacts upon the capital stock and a tentative characterisation of broader impacts upon total factor productivity. We are therefore now in a position to fill in the first column of the migration-development matrix that has been previously introduced (Table 2), before moving on to the issue of transnational linkages in the next chapter.

Table 2. The impacts of exit upon factor endowment (summary)

Productive factors impacted upon	*Logical moment in the migration process*
	t_0 (exit)
Labour	• Labour drain (with consequences ranging between the "Lewis world" Pareto-optimality and the improvement of the workers' situation at the expense of the holders of capital as the marginal product of labour increases); • Labour gain (increased labour force participation rate or replacement in-migration in response to possible wage rise).
Capital	• Relatively negligible spending and/or overseas transfer of financial capital associated with financing the migration and settlement process.
Human Capital	•'Brain drain" (with especially harmful consequences in the event of bottlenecks in production, loss of positive externalities and forfeited benefits of agglomeration, e.g. through the dissemination of tacit knowledge); •'Brain gains" (directly and indirectly induced human capital formation through rising returns to human capital in the home country and resulting from the possibility of migration; skilled replacement in-migration).
Social Capital	—
TFP	• Potential for dissention between sending and receiving countries (with impacts upon other types of flows); • Domestic political effects of large-scale emigration(stimulus for change *versus* alleviation of political and social pressure); • ...

5. TRANSNATIONAL LINKAGES

This chapter addresses those identifiable impacts of migration upon the economic development of the sending countries that arise out of the presence of the migrants abroad. These include a variety of significant flows that range from monetary and social/cultural remittances (Levitt and Nyberg-Sorensen, 2004; Nyberg-Sorensen, 2004) to the transfer of codified knowledge and the formation of transnational social capital. As usual, I shall seek to examine them systematically by looking at the various effects according to the relevant production factor undergoing changes. I shall do this by looking first at those impacts associated with the monetary transfer of earnings and/or capital in Section 5.1, proceed to discuss the effects upon the "stock" of social capital in Section 5.2, and finally address some of the remaining relevant impacts in Section 5.3.

Of special importance to the discussion of the impacts associated with the migrants' presence abroad are two central concepts: «transnationalism» and «diaspora». The first one refers to the set of social, economic, political and cultural practices that transcend the ambit of a single nation-state[46]. These are of course not limited to the relationships between the sending country and its emigrated communities, and also include the activities of transnational corporations, multilateral political agencies, transnational grassroots activist groups, etc. For our purposes, though, it is *migrant* transnationalism, or «the process by which (...) migrants forge and sustain multi-stranded social relations that link together their societies of origin and settlement» (Levitt and Nyberg-Sorensen, 2004) that is of interest, especially as far as its economic consequences are concerned. It is a form of transnationalism from below (that which is generated through the practices of individual actors)[47], as opposed to transnationalism from above (that which is centrally regulated within the ambit of formalised social, political or economic institutions) (Guarnizo and Smith, 1998).

«Diaspora» is another term that requires further elaboration and which is of central importance to the discussion in this chapter. It is a term that has taken a variety of meanings depending on the disciplinary vantage point, the historical period being referred to and the heuristic objectives of its usage. In the "classical" usage of the term (Shuval, 2000; Reis, 2004), Jews are the

46. Ellerman (2005:33, drawing on Portes, 1999) provides an interesting characterisation of the concept: «'Transnational" has become a popular term that connotes more globalization-enhanced betweeness, circularity, back-and-forthness, or to-and-froing than old-fashioned terms like "international'».
47. As is, among the other previous examples of transnationalist practises, the case of transnational grassroots social and political organisations.

«quintessential or archetypal diasporic group»[48] (Reis, 2004:42), insofar as they provide the best-known historical example of one and strictly fulfil all the traditional criteria used in assessing the diasporic nature of a national or ethnic group: «1) dispersal from an original "centre" to two or more foreign regions; 2) retention of a collective memory, vision or myth about their original homeland (...); 3) the belief that they are not – and perhaps never can be – fully accepted in their host societies and so remain partly separate; 4) the idealization of the putative ancestral home and the thought of returning when conditions are more favourable; 5) the belief that all members should be committed to the maintenance or restoration of the original homeland (...); and 6) a strong ethnic group consciousness retained over a long time» (id, ibid:43, referring to Safran, 1991). Other historical examples of "classical" diasporas include the Armenians and, to some extent, the Africans dispersed through the slave trade.

The "contemporary" usage of the term is much less demanding, and retains elements of dispersal and attachment while discarding the requirements associated with trauma, exile and militancy. Throughout this text, I shall use the term in the latter manner and in possibly the broadest possible sense, to refer to people dispersed away from a given nation-state for voluntary or involuntary reasons who retain an identity bond with that nation-state, regardless of distance, ethnic group or nationality status. In particular, it is the identity and emotional attachment that is of relevance, rather than the nationality status, because it is therein that lies the potential for engaging in transnational practices with the country of "origin": in the adopted framework, whose goal I recall is to address the impacts of emigration upon sending country development, a third-generation migrant who retains a strong identity bond with the country of origin of his forefathers and accordingly engages in meaningful transnational exchanges is of much greater relevance than a first-generation migrant who for one reason or another has cut all bonds with his country of provenance[49]. Still, diasporas and transnational communities are not synonymous terms: while the criterion for the former concerns identity and attachment, the criterion for the latter has to do with the maintenance of actual practices and activities, particularly the exchange of resources and information, between the members of a diaspora and/or with their homeland (Vertovec, 2005).

48. Even though the term has a Greek origin (from the verb *diasporein* = to scatter about) and originally referred to the Greek «colonization of Asia Minor and the Mediterranean in the Archaic period (800-600 BC)».
49. Vertovec (2005:2) aptly notes that such attachments are dynamic: they «may be lost entirely, may ebb and flow, be hot or cold, switched on or off, remain active or dormant. The degree of attachment – and mobilization around it – often depends upon events affecting the purported homeland».

5.1. Remittances and migrant investment

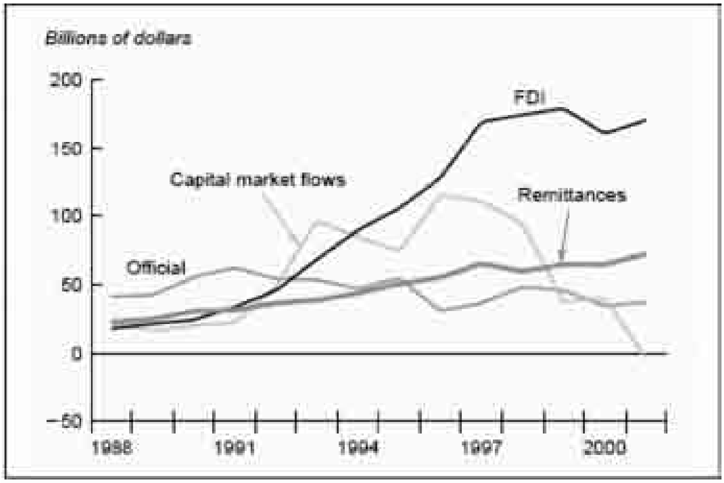
Possibly the most significant type of flows that is directly associated with the migrants' presence abroad is that of monetary resources, either through remittances – «the portion of migrant workers' earnings sent back from the country of employment to the country of origin» (Russell, 1986 and 1992) or more specifically as FDI or portfolio investment. A distinction between these two categories is important insofar as the various types of remittances, which we shall review in this section, can be destined either for consumption or investment (thereby increasing either the level of current welfare or the capital stock), whereas FDI and portfolio investment contribute directly to the sending country's capital stock. However, since only a portion of the additional investments brought about by the diaspora's transfer of financial resources to the sending country takes the form of FDI or portfolio investment in the official statistics, the discussion of the contribution of the monetary flows originating in the diaspora to the sending country's productive capacity has to consider these two types of flows in conjunction.

In global terms, remittances are both tremendously important and steadily increasing as a source of external finance for developing countries (Ratha, 2003; World Bank, 2005). Officially registered remittance flows to developing countries amounted to USD 126 billion in 2004, upwards from 116 billion in 2003, 99 billion in 2002 (World Bank, 2005) and 72 billion in 2001 (Ratha, 2003)[50] [51]. These figures are all the more impressive if compared in their magnitude with the other types of financial flows to developing countries (Figure 3): the total volume of remittances has consistently been higher than ODA since the mid-1990s and is second only to FDI as a source of external finance to developing countries. Another hallmark feature of remittances, which is also apparent in Figure 3, is their inherent stability. In particular, there is evidence that remittance flows act as stabilisers, often exhibiting counter-cyclical behaviour with regard both to the economies of the destination countries (Ratha, 2003) and to the global economy[52]. This is likely

50. Note that these figures are gross, i.e., they do not subtract the outflows from the inflows. It would make little sense to do that in examining the impacts of emigration, though, since remittance outflows are associated with *im*migration. They are also likely expressed in current prices, although this is not explicitly stated.
51. Going further back in time for an even more impressive comparison, Taylor (1999) indicates that total (i.e., not just to developing countries) worldwide remittance credits were less than USD 2 billion in 1970. However, Nyberg-Sorensen (2004) cautions against attributing this increase solely to an increase in the volume of remittances *per se:* it is almost certainly also a reflection of the increasingly formalised character of the flows and of the increasing availability and accuracy of the data.
52. For example, Ratha (2003:160) underlines the fact that «remittances to developing countries continued to rise steadily in 1998-2001 when private capital flows declined in the wake of the Asian financial crisis».

explained by several motives, not the least of which is altruism[53] as one of the rationales for remittances, leading remitters to send more when recipients are most in need. Their inherent stability has in fact enabled several remittance-recipient developing countries to access international capital markets in more advantageous terms than they otherwise would have, by securitising future remittance flows (id., ibid.).

Figure 3: Remittances and other financial flows to developing countries, 1988–2001



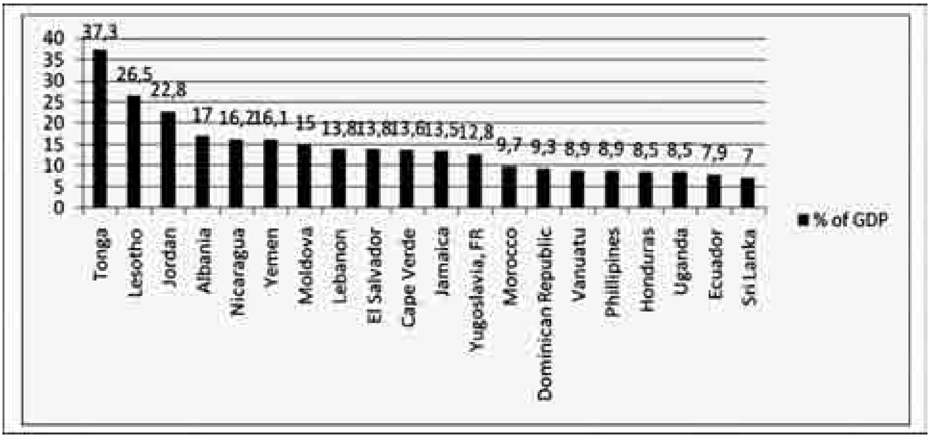
Source: Ratha, 2003 (drawing on IMF Balance of Payments Yearbooks)

As regards the distribution of remittance flows to developing countries by region, we find that Latin America and the Caribbean is the largest[54] recipient region (31% of the total flows in 2002) followed by South Asia (20%), Middle East and North Africa (18%), East Asia and the Pacific (14%), Europe and Central Asia (13%) and Sub-Saharan Africa (5%) (Nyberg-Sorensen, 2004, referring to Orozco, 2003). Although somewhat concentrated in a relatively small number of countries in each region in terms of absolute volume, remittances are more evenly distributed than private capital flows and are larger as a share of GDP in low-income countries than in the other categories of developing countries (Ratha, 2003). The relative figures are particularly impressive in some countries (Figure 4): few commodities

53. Typologies of remittance motivations have traditionally included altruism (caring for those left behind) and self-interest (desire to invest, aspiration to inherit and other social capital considerations), to which the NELM school adds the logical consequences of what motivated migration in the first place (enacting the self-insurance objective, overcoming credit restrictions) (Taylor, 1999).
54 And fastest-growing.

other than oil are capable of matching the weight relative to GDP of the "labour export" in these countries.

Figure 4: Remittances as a % of GDP, 2001 (top 20 countries)



Source: Adapted from Nyberg-Sorensen, 2004 (drawing on data from World Bank, 2003)

There are several reasons to believe that the figures mentioned so far, all of which are based on the IMF Balance of Payments Yearbook, greatly underestimate their volume (Nyberg-Sorensen, 2004). Not only have many developing country banking authorities traditionally been unable to keep an accurate record of the remittance flows entering their country, even accurate official records can only keep track of remittances sent through formal channels. There is a long-standing tradition in many migrant-sending areas of informal remittance systems – such as *hawala* in Muslim South Asia and *hundi* in India (Nyberg-Sorensen, 2004; Lucas, 2005; Pieke *et al*, 2005) –, which have been used by migrants and their households due to their advantages in terms of accessibility, trust and cost (Pieke *et al*, 2005). The accessibility factor has to do with the fact that many remittance senders and receivers do not have bank accounts and, especially in the case of the latter, are often a long way away from the nearest branch of any bank (Karafolas, 1998; Ratha, 2003); the trust advantage results from the fact that these informal financial networks are built into long-standing social networks; and the cost factor is associated with the fact that the lack of competition in the remittance market has allowed official banks and money transfer operators to charge transfer fees far in excess of actual transfer costs[55] (id., ibid.). Moreover, both because of the aforementioned insuffi-

55. As an example, Ratha (2003:165, referring to Orozco, 2002) indicates that «the average cost of transferring remittances to Central and South America is in the range of 13 percent, and often exceeds 20 percent».

ciencies of the formal banking system and sometimes due to artificially maintained foreign exchange rates (allowing for black market premia), migrants from a variety of settings have on many occasions relied on in-hand or in-kind[56] remittances, which are also outside the reach of the official records[57] [58] [59](Russell, 1986).

A fuller appreciation of the differential impact of these various types of remittances requires that we discuss the impacts of remittances in general, from a theoretical point of view and especially as regards developing sending countries. According to the two-gap theory (Glytsos, 2002, referring to Chenery and Bruno, 1962), the constraints to development in most developing countries take the form of either an insufficiency of savings (the first gap) or of an inadequacy of those savings due to a lack of foreign exchange (the second gap), which hinders the import of necessary investment goods. Within this framework, remittances and migrant investment are a true blessing: not only do they increase savings in the sending country by increasing the available income (or by being a direct transfer of overseas savings, in the case of FDI and portfolio investment), they also directly increase the volume of available foreign exchange, thus alleviating the two major constraints to the import of those investment goods that are necessary to the shift from the production of non-tradable goods to the production of tradable goods, and to development more generally.

In the Harrod-Domar model dating back to the 1940s, on the other hand, the growth rate is proportional to the investment rate, i.e. capital accumulation is the ultimate source of growth (Easterly, 2002). Within the framework of this highly influential model, migrant remittances are also seen under a very positive light, insofar as they constitute (alongside foreign aid) a way to fill the financing gap between a country's domestic savings and the desired

56. In-hand remittances consist of money physically brought into the sending country by relatives, friends or the migrants themselves, upon occasional visits or upon returning; in-kind remittances consist of goods, usually consumer durables sent in a similar way.
57. In the case of some countries, informal remittances can be very significant, even more so than formal ones: Nyberg-Sorensen (2004:13) states that «evidence from Sudan and Egypt suggests that the informal remittances double, and in some cases even triple the total amount of migrants" financial transfers». The probably relatively higher proportion of informal remittances in the case of African countries can also partially account for this continent's low share in the geographical distribution of remittances.
58. Another common classification divides remittances into *individual* (sent by individual migrants) and *collective* remittances (organised through community groups, particularly hometown associations (HTAs) (Nyberg-Sorensen, 2004).
59. Another way commonly used by migrants to circumvent the problem of high transfer fees, in this case within the formal remittance system, consists of "bundling together" remittances so as to reduce the relative weight of fixed commissions.

level of investment. Meanwhile, Robert Solow has drawn attention to the fact that the existence of diminishing returns to capital make it impossible for capital accumulation to drive long-run growth all by itself (id, ibid). However, even in the Solow model, investment is *the* main source of growth for countries whose relative capital endowment is below the long-run "equilibrium" level, for as long as the transition to the long-run equilibrium trajectory lasts.

Of course, only a share of the total level of remittances ultimately results in investment, which is why some of the literature on the impact of remittances has consisted of micro-level remittance-use studies, which have sought to assess the development impact of remittances based on their alleged use by their recipients. Their general conclusion has often been that that development impact is in fact little or inexistent (see Russell, 1992, for a critical presentation of several references; Ellerman, 2003, Papademetriou and Martin, 1991, and Massey *et al,* 1998 appear to partially endorse this view uncritically), since recipient households are mostly found to spend remittances in consumption (particularly of daily staples, education, housing, various type of conspicuous items, dowries and celebrations, etc.) instead of investment. From an economist's point of view, this conclusion is an aberration for a variety of reasons: (i) first of all, because remittances add to the income of the recipient households and are not earmarked for any particular expenditure (i.e. they are fungible: Farrant *et al,* 2006; Taylor, 1999): therefore, it makes little sense to enquire what remittances are spent on; instead, one should compare the spending pattern of the household in the presence of remittances with its counterfactual[60]; (ii) because some of the uses of remittances that are regarded as consumption have an impact upon generating future flows of income (i.e. they would be more aptly classified as investment): this is especially the case as regards health and education expenditures (which contribute to human capital), but also to a lesser extent in the case of dowries and celebrations (which contribute to the social capital of remittance spenders[61,62]) (Bourdieu, 1983; Farrant *et al,*

60. This is especially important from the NELM perspective (Taylor, 1999), since this current posits that migration is often a household strategy employed to overcome credit restrictions: the availability of additional finance brought about by remittances will therefore possibly allow *other* resources to be freed up for investment.
61. Although not necessarily to that of the country as a whole, given the impossibility of aggregation of the «egocentric» social capital held by the various members of a given group (see section 4.2 for a detailed explanation).
62. Indeed, in discussing the convertibility between the various forms of capital, Bourdieu (1983:253) has this interesting, albeit controversial, remark: «In accordance with a principle which is the equivalent of the principle of the conservation of energy, profits in one area are necessarily paid for by costs in another (so that a concept like wastage has no meaning in a general science of the economy of practices)».

2006; Carling, 2004; Russell, 1986); (iii) because the consumption versus savings behaviour depends on an implicit inter-temporal utility calculation: this implies not only that it may be presumptuous to consider that remittance users are spending their money incorrectly (Carling, 2004; House of Commons, 2004), but also that it would be foolish to expect remittance-receiving households to behave as affluent capitalists and exhibit a marginal propensity to save or invest significantly above that of their socio-economic group[63] (Russell, 1986); (iv) finally and most importantly, because unless all the additional income is spent on imported goods – which of course never happens on the aggregate –, all forms of spending, whether for consumption or investment, will have a multiplier effect that will spread to the rest of the community, region and country, depending on the intensity of the linkages[64] (Glytsos, 2002; Lucas, 2005; Massey et al, 1998; Russell, 1986 and 1992; Taylor, 1999; etc.).

It is therefore clear that this more naive type of criticism of the developmental impact of remittances is largely unwarranted. Remittances, whether formal or informal and like any other source of external finance, will bring about an increase in the level of savings and investment, as well as an increase in the availability of foreign exchange (except for the case of in-kind remittances[65]). Worthy of greater consideration is the possibility that remittances have a partial displacement effect, by encouraging remittance recipients to "live off them" and choose not to work (thereby maximising their utility but partially compromising the overall output, income and investment increase) or by crowding out domestic savings (the flip side of the coin of the

63 However, it has been argued (Glytsos, 2002:14) that, as a general rule, «the propensity to save out of transitory income is higher than the propensity to save out of permanent income» and that «ample empirical evidence shows that saving out of remittances (...) is indeed much higher than savings from regular earnings in the home country».
64 Note that, as highlighted by Silva (1984), the intensity of these linkages can prevent capital formation in the remittance-recipient region and therefore hinder the developmental effect of these transfers. Referring to the case of the Portuguese regions of mass emigration in the second half of the 20th Century, this author argues that the savings from remittances in the recipient households would typically be channelled by the financial system for investment in the country's most dynamic regions. Therefore, while contributing to capital formation in the nation as a whole, remittances would at the same time exacerbate regional disparities. Still, provided that the overall balance is a positive one, the national government can always implement regional redistribution policies in order to ensure that the impact upon the nation's welfare is as large as it possibly can.
65 Note that the availability of foreign exchange increases even in the case of informal remittances, provided that they do not take the form of physical assets. For example, in the case of informal remittance systems built into wider trade and business networks that act as clearing houses, remittances increase the availability of foreign exchange to those networks. What *does* occur is that this increased availability is not controlled by the state and cannot therefore be taken into account in macroeconomic planning.

NELM argument). Clearly, as in the case of the "brain drain", the relative importance of the various effects cannot be determined *a priori*, although in the case of remittances, empirical studies from a variety of settings have consistently found that the overall multiplier effect of remittances is both positive and large: for example, Glytsos (1990, referred to in Russell, 1992) found a multiplier of 1.8 of the *consumption* spending of remittances upon GDP in Greece, whereas Adelman and Taylor (1990, referred to in Taylor, 1999) found a multiplier between 2.69 and 3.17 of remittances upon GNP in Mexico[66].

For our analytical purposes, though, the most important aspect about remittances is neither their immediate capacity to expand the welfare of their recipients[67] through (whether sustained or not) present consumption, nor the alleviating effect upon the lack of foreign exchange (which is avowedly very important for many developing countries but has no place in this model). What *is* most important about both remittances and migrant investment is that they increase the capital stock of the sending country, either directly (FDI, portfolio investment and the investment component of remittance use) or indirectly (through the propensity to save[68] of the agents involved in the multiplier). Moreover, the assessment of their impacts must also take into account the additional human and social capital formation brought about by the remittance and migrant FDI flows.

The magnitude of the overall impact upon the capital stock will depend first and foremost on the partial displacement effect, on the propensity to save of the agents involved in the various multiplier rounds and on the imports content of those agents' spending. In any event, it is likely positive and large in the vast majority of the cases[69].

66. This differential depended on which household group received the remittances: «remittances produced the largest income multipliers when they flowed into rural households, whose consumption and expenditure patterns favour goods produced domestically» (Taylor, 1999:70).
67. And of the subsequent beneficiaries through the multiplier.
68 Provided that these savings are made available to investors through the formal or informal financial system, thus increasing their supply, bringing down interest rates and increasing investment.
69. Other criticisms of remittances have emphasised their likelihood to creating dependence and their inability to «jump-start the local engines of development» in such a way that local jobs and income could be sustained «without ongoing migration and remittances» (Ellerman, 2003:24). Several authors, including Carling (2004:5) correctly warn that it is important «not to the let the best be the enemy of the good» and that expecting migration in general, and remittances in particular, to generate fully autonomous and endogenous growth is too demanding a benchmark (and an incorrect one at that) for assessing its positive or negative character with respect to development. Besides, such benchmarks are not similarly applied to other sources of external finance: for example, analyses of the beneficial or detrimental nature of a given country's participation in international trade certainly do not expect it from eventually allowing that country to remove itself from trade (Taylor, 1999).

5.2. The formation of transnational social capital

Although already referred to in passing as one of the specified production factors in our model, the concept of social capital has not been discussed in great length in this dissertation up until now. This has been due to the fact that, as argued before, both the formation and obsolescence of social capital (which is embodied in social relations) are time-demanding processes. In Bourdieu's particularly fortunate formulation (1983:241), «the social world is accumulated history». Therefore, it seems appropriate that the discussion of the impacts of emigration upon the sending country's stock of this form of capital be carried out within the ambit of the linkages associated with the migrants' presence overseas, rather than those involved in the moment of exit.

However, social capital is a particularly thorny concept, whose «definition, operationalisation and measurement (...) have to be resolved coherently within a particular approach or research programme» (Adam and Roncevic, 2003:157) in order for it to have any meaning and serve any purpose at all other than tautologically explaining all sorts of social and economic outcomes by attributing them to vaguely defined facilitating properties of the social and economic system itself. Therefore, even though this is not the place for a lengthy discussion of social capital, its various definitions or the criticism that it has been subject to[70], it is nevertheless essential that its meaning in this context be defined exactly.

It is worth recalling that while authors such as Adam and Roncevic (2003) date the roots of the concept back to Tocqueville's writings on associative life in America or Durkheim's normative criticism of anomie in social life, the rebirth of the concept in its current form(s) and usage(s) is mostly associated with three late-20th Century authors who call upon it in quite disparate ways: Bourdieu, Coleman and Putnam (Adam and Roncevic, 2003; Fine, 2001, Portes, 2001). Each of these authors has contributed his definition of social capital[71], possibly initiating a tradition of each author that

70. The reader is referred to Adam and Roncevic (2003) and Portes (1998) for introductory presentations of the subject, as well as to Fine (2001) for arguably the most solid criticism of the use of the concept. The Social Capital Gateway website (www.socialcapitalgateway.org) is an extremely useful entry point for those interested in further exploring the subject.

71. «(Social capital is) the aggregate of the actual or potential resources which are linked to the possession of a durable network of more or less institutionalized relationships of mutual acquaintance and recognition» (Bourdieu, 1985, cit. in Portes, 1998:3); «Social capital is defined by its function as a variety of entities with two elements in common: They all consist of some aspect of social structures, and they facilitate certain actions of actors – whether persons or corporate actors – within the structure» (Coleman, 1988, cit. in Portes 2001:5); and «Social capital (...) refers to features of social organisation, such as trust, norms, and networks, that can improve the efficiency of society by facilitating co-ordinated actions» (Putnam, 1993, cit. in Adam and Roncevic, 2003:160).

calls upon the concept suggesting his own and thereby giving rise to a «plethora of definitions» (Adam and Roncevic, 2003:158). I shall be no exception to this rule and, accordingly, would like to suggest my own definition for the sake of both simplicity (which I find to be somewhat lacking in these three authors' definitions) and rigour (so that the reader understands precisely what is meant by the concept in this context). Thus, I would suggest that we recuperate Bohm-Bawerk's notion of capital as «produced means of production» in order to define social capital as «produced means of production *that assume the form of social relations*»[72]. Of course, this immediately leads us to the issue of whether social relations can be looked upon as means of production, which I argue is the case. Whether or not social relations are deliberately and/or utilitarianly initiated and maintained by agents with a view to increasing their access to resources and power, it seems unquestionable that they have the potential (and indeed bring that potential into action) of creating value for the agents participating in them, be it use value (e.g., through non-mercantile practices of support, assistance, etc.) or exchange value (by increasing the "exchange value-generating" potential of the agents" labour or other forms of capital). While the former "use value-generating" worth of social capital cannot be addressed by any economic approach exclusively concerned with exchange value, as is the case both of this dissertation and dominantly in economic theory[73], the latter "exchange-value generating potential" can. Thus, a more extensive and operational (though admittedly more confusing) definition of social capital in this sense might be «that form of capital consubstantiated in social relations that gives rise to the difference between the exchange value of two agents" identical stocks of labour as well as economic[74], human and other forms of capital».

This discussion may have already rendered clear that my own understanding of social capital in the context of this dissertation places itself in

72. This amounts to looking at the social world from the point of view of the production of value: naturally, all meaningful social relations are capable of generating value; and they themselves have to be produced, i.e. «[they are] not a natural given» (Bourdieu, 1983:249). On the other hand, as regards the argument by authors such as Fine (2001) according to which capital is nothing else than a set of social relations and that, therefore, there is no such thing as specifically *social* capital (all capital being social), I would object by arguing that while all capital has a set of social relations associated with it, not all capital *assumes the form* of social relations (only social capital does): some capital takes the form of physical objects or machinery, some of money or financial assets, some of embodied or reified knowledge, etc., all these forms being more or less easily and/or visibly convertible into one another, as explained by Bourdieu (1983).
73. Though not in a «general science of the economy of practices» as advocated by Bourdieu (1983:242).
74. In the narrow sense of physical or financial capital.

the tradition of what Adam and Roncevic (id, ibid) call the «egocentric» approach to social capital, which has been most prominently pursued by Bourdieu. In this approach, social capital is the property of (individual or collective) agents and the focus is on those agents «ability to secure benefits by virtue of membership and position in a social nexus». In Bourdieu's framework, it is in fact a major *explanans* of class structure and individual social (im)mobility. This «egocentric» approach to social capital is in contrast with the «sociocentric» approach, which is the one endorsed for instance by Coleman, Putnam, Fukuyama or the World Bank (in its attempts to survey the level of social capital in developing countries and call upon it as a determinant of economic outcomes). In this latter approach, which can be characterised as normative or neo-Durkheimian, social capital is the property of groups, networks or societies, not agents, and can be regarded as the level of density of those "groups", "networks" or "societies" social fabric. This has led to it having been practically equated with aspects such as trust, civic commitment or engagement in public affairs, measured accordingly and often put forth as a panacea for all sorts of social and economic ills (id, ibid)[75].

So how it is possible to endorse an «egocentric» understanding of social capital and at the same time refer to a given country's stock of that production factor in the same sense? This involves a few subtleties that have to be rendered clear. Clearly, a country's stock of physical capital amounts to the sum of the stocks of its nationals. However, «egocentric» social capital cannot be aggregated in the same way. If a given agent's social capital gives him or her access to a particular position or particular resources at the expense of others, clearly on the aggregate we are looking at a zero-sum game – perhaps even a negative-sum game to the extent that such non-meritocratic means of access produce less efficient outcomes (id, ibid). On the other hand, social capital envisaged in this way can sometimes in fact increase efficiency on the aggregate – specifically by lowering transaction costs.

In order to further explain the use of the concept in this context, it is also useful to introduce a classification of social capital from the literature (Healy[76], 2002:3), which divides it into *bonding* social capital (referring of «ties and networks among homogeneous groups»), *bridging* social capital (which refers to «social ties across diverse groups») and *linking* social

75. In fact, I would argue that Fine's (2001) heavy criticism of the concept of social capital and its use, including the fact that it is a central part of the (deleterious and inadequate) colonisation by economics of the other social sciences, applies to the «sociocentric» but not to the «egocentric» approach.
76. Note that this author writes in the «sociocentric» tradition. However, the use of this classification will hopefully help to render my own concept clearer.

capital («ties and networks within a hierarchy based on differences in social position and power(...), e.g., the resources and networks embodied in the relationship of particular communities to the State»). It is important to note that since the concepts of homogeneous and diverse groups depend on the criteria being used, the classification of a given instance of social capital as *bonding* or *bridging* will also depend on those criteria: for example, the same social ties may constitute bonding social capital from an ethnic standpoint and bridging social capital from the point of view of social class. That is to say, from the egocentric perspective of a given holder of social capital, there is no practical or theoretical difference between bonding and bridging social capital. It is only if we take the aggregate group, network or society as the relevant unit that a difference emerges: in that case, the group's *bonding* social capital consists of the internal density of its social fabric; and its *bridging* social capital consists of its endowment in terms of ties and linkages with agents outside the group, which is nothing else than *the aggregate of its members'* ties and linkages with agents outside the group. In sum, in my view there is considerable overlap between the classification of social capital as bonding or bridging (linking social capital being a particular case of the latter), on the one hand, and the distinction between the egocentric and sociocentric perspectives, on the other.

For the purpose of our model, it is especially useful to adopt an egocentric perspective and focus only on *bridging* social capital, in the sense of the social ties with the potential to generate economic value that cut across national boundaries and link sending country agents with other countries' agents. If we use this criterion to distinguish between bonding and bridging social capital, then it is clear that unlike bonding social capital (which can have the zero- or negative-sum effect), bridging social capital *can* be aggregated and a given country's stock of this factor *can* be conceptualised as the sum of its nationals' stocks of bridging social capital. In sum, a country's stock of social capital (in this sense) corresponds to the quantity and quality of its linkages with the rest of the world, which can, much in the same way as for agents, give rise to differences between the output-generating potentials of two countries with identical stocks of labour and other forms of capital besides social capital.

Moreover, if we conceptualise the sending country, the emigrated communities and the host country as the three relevant units of analysis and focus solely on the social ties that bind them with each other from the «egocentric» perspective of each of these collective agents (i.e., leaving aside the «internal»/«bonding»/«sociocentric» social capital of each of these three agents), we will then have two types of social capital that are relevant for our purposes: i) a first type consubstantiated in the ties and relations between the sending country and its emigrated communities; and ii) a second type consubstantiated in the ties and relations between the emigrated communities and the host country. Social capital defined in this way has a multiplicative property: the emigrated communities "mediate" between the sending country and the host country to the extent of the strength of its linkages (endowment in bridging social capital) with the sending country, on the one hand, and the host country, on the other. Naturally, bearing in mind the other locations of transnationalism aside from migration (Guarnizo and Smith, 1998), it is obvious there will be a third side in this triangle, made up of that social capital that corresponds to the ties and relationships between the sending country and the host country that are not "mediated" by the emigrated communities. However, this third type of transnational social capital is not in relation with migration and therefore is of no interest to us in this context. The important thing to bear in mind is that, insofar as the sending country is in relation with its emigrated communities, the economic value of the social capital consubstantiated in that relation will depend, *inter alia*, on the value of the social capital held by its emigrated communities in relation to the host societies.

Having defined social capital in this way, how does emigration bring about changes in the sending country's stock of this factor? Basically, in their new geographical and social setting and as time unfolds, migrants engage in new social interactions. These can vary immensely, depending on the characteristics of their process of incorporation into the host society: at the two extremes, migrants can either remain largely confined to cohesive ethnic or national enclaves with few linkages to the rest of society, or they can "melt" into that society and engage in a variety of social interactions that cut across ethnic and national divides. These patterns are not a mere consequence of chance or of individual preferences[77]: they are usually a reflection of the migrants" own characteristics and resources (capital endowment, apparent degree of "sameness" with regard to the norm in the host society, etc.), as well as of those of the host society itself (institutional characteristics of a variety of markets, identity myths that preside over the cohesiveness of the host society, etc.) (Fonseca and Malheiros, 2005; Oliveira, 2004).

Over time, those interactions give rise to the creation of social relations and networks and to the sharing of norms, values and understandings among and between the individuals and groups engaging in them – i.e., they give

77. Although intra-ethnic and intra-national individual variation will also be very considerable, and at least partially determined by the individuals' differential endowment in terms of human capital and «bridging» social capital (a concept that shall be presented further on in this chapter; Healy, 2002).

rise to the formation of social capital. Thus, to the extent that migrants forge new social relations in their new geographical and social setting, while maintaining (to a varying extent) the ties with agents in their home country, migrants will have an important impact in increasing the sending country's stock of social capital – all the more so depending on two "multiplying" factors: their level of "type 2" social capital with regard to the host society (a function of integration), and their level of "type 1" social capital vis-à-vis the home society (a function of individual ties and attachments as well as diasporic identification). Other things being equal, the economic value of the stock of transnational social capital of the sending country[78] depends on the migrants" capacity to (i) "capture" and "remit" resources with an economic value to the country of origin and/or; ii) bring about an increase in the productivity of the production factors in the home country, through their participation in transnational networks that allow those production factors to be allocated to more efficient uses. In turn, this depends on the migrants" capacity to engage in and maintain interactions with the agents in the host society, while simultaneously maintaining meaningful linkages with those left behind.

The optimal situation is illustrated by the example of networks of highly skilled expatriates (who hold both a high level of human capital and bridging social capital) which «have been developed for the purpose of bringing these expatriates" individual and collective skills to (their) developing countries of origin» (Meyer, 2001:92). These networks also serve to illustrate the intimate relationship between human and social capital: the "type 2" bridging social capital of their members is partially a consequence of the social recognition of the value of the human capital that they accumulated through time; the value of that human capital is boosted by its connectivity and social setting; and in the case of these networks specifically aimed at directing their skills to the benefit of the home country[79], their "type 1" social capital translates into a flow of codified knowledge, ideas and technology that benefits the country of origin by eventually bringing about an increase in the human capital of those in the home country.

The opposite example would of course consist of emigrated communities characterised by low levels of either "type 1" or "type 2" social capital, or both. These are of course of little worth to their countries of origin, since little economic returns accrue to those countries due to the migrants' incapacity to tap into the resources of the host society and channel them to

78. Again, in relation to migration only.
79. Brown (2000, cit. in Meyer 2001) counted 41 such networks created during the 1990s specifically in the case of developing countries of origin.

the benefit of the home country or increase the productivity of the sending country's production factors. The diasporas' endowment of each of the two forms of social capital[80] need not accompany each other: enclaves of deprived migrants may maintain a high level of commitment towards, and a high density of relationships with, their country of origin, yet be unable to translate that social capital into other forms of capital or income flows due to their deficient incorporation into the host society; or they can be highly successful and have privileged social relations and access to resources in the host country, yet having severed the ties with the home country.

Still, there is a vast and increasing number of examples of transnational social networks with great economic value and potential for the migrants' countries of origin, from the establishment of transnational trade and business ventures (both carrying out and facilitating outward market penetration and inward FDI; Hunger, 2002; Lucas, 2005) to scientific diasporas networking to use their resources to the benefit of their country (Meyer and Brown, 1999; Séguin et al, 2006), from migrants actively lobbying in favour of home country interests (Ostergaard-Nielsen, 2003) to HTAs organising the flow of resources to social infrastructure in their communities of origin (Nyberg-Sorensen, 2004). As we shall see in Chapter 8, this has been leading to a growing interest in the "diaspora option" on the part of sending country governments.

Thus, from an analytical standpoint, migration impinges upon the stock of social capital of the sending country by giving rise to new ties and networks connecting its society and economy with the rest of the world and by forging the sharing of norms and understandings between and among those involved in those networks. At the same time, the usually reducing effect of geographical distance upon the frequency and density of the interactions with those far away can bring about the obsolescence of some previously formed "type 1" social capital (involving migrants and those left behind), which, after a while and through lack of "upkeep", may no longer be possible to mobilize in order to generate value for those holding it. Of course, the pace of the transport and communications revolution has significantly altered the overall balance, by significantly attenuating the

80. Bear in mind that, over time, the differential attachment of the migrants and of the subsequent generations to each country will shift, so that their social ties with the country of origin (type 1 social capital) will typically diminish, whereas those with the host country (type 2 social capital) will typically increase – often much more rapidly so than sending country policymakers and nationalist mythmongers would desire (Monteiro, 1994). Nevertheless, not until all the social capital involving them and their (or their forefathers') homeland has waned, will these complementary forms of social capital cease to have an economic value to the country of origin.

impact of distance upon the obsolescence of social capital. This has allowed the positive impacts of migration upon social capital (the formation of new ties and networks "bridging" the home society with the outside world) to gain in importance relative to the negative ones (the partial obsolescence of the social capital embodied in the sending country networks of which the migrants were a part, through their physical removal).

To sum up, in the context of this framework, given the approach and assumptions presented so far and taking the sending country, its emigrants and the host country as the relevant units, the overall impact of emigration consists of an increase in the stock of "type 2" social capital, partially offset by a decrease in the stock of "type 1" social capital consubstantiated in the social ties between those who leave and those who stay behind. The overall product of the two factors that make up this «dyadic link» (Cohen and Gold, 1997:374) impinges upon the future productive capacity of the sending country both indirectly by giving rise to flows of other forms of capital (through remittances, FDI, the transfer of codified knowledge, etc.) and directly by increasing the productivity of that country's existing stock of production factors (by opening up new markets, providing access to new business opportunities, etc.). As for the impacts of emigration upon the sending country's level of «bonding» or «sociocentric» social capital (e.g., upon the levels of trust and civic commitment), they are arguably too complex to analyse in a useful and serious manner. This form of social capital is therefore deliberately cast onto the "black box" of TFP, along with the other broad social, institutional and political determinants of a country's trajectory.

5.3. Other effects

As far as the impacts associated with the overseas presence of the migrants are concerned, we have so far reviewed the significance of remittances and migrant FDI in increasing the sending country's capital stock, as well as the effects of emigration upon social capital formation and obsolescence. In discussing the latter, we have seen how transnational social capital is economically most valuable not through generating value *per se*[81] but by bringing about an increase both in the stock *and* the productivity of the other production factors.

It will therefore come as no surprise that the impact of emigration upon the sending country's stock of human capital (in association with the second

81. Again, in the sense of exchange value. Transnational social capital, like all social capital, can generate use value *per se.*

logical moment in our model – the overseas presence of the migrants) also be mediated by the level of social capital bridging the home and host societies through the emigrated communities. As we have already hinted at while discussing the issue of transnational networks of skilled expatriates, the smaller or greater effect upon the human capital stock of the sending country will depend on the migrants capacity to bring about the dissemination of knowledge in their home country, either by remitting codified knowledge, technologies and ideas from afar or by appropriating and disseminating both codified *and* tacit knowledge, technologies and ideas through temporary visits to their home country. While the remittance of codified knowledge can indeed have an important impact[82], it is the relevance of the dissemination of tacit knowledge, alongside the need to meet the home country's unmet demand for strategic skills, that in my view provides the rationale for temporary return programmes such as IOM's MIDA[83] or UNDP's TOKTEN[84]. I shall return to the issue of the policy options aimed at exploring these linkages and maximising these flows in Chapter 4.

Applying our general discussion on social capital from the previous section to the specific issue of human capital formation in the sending country, it seems reasonable to admit that the impact upon the stock of this factor will be the result of the multiplication of three different factors: the human capital stock in the host society to be potentially tapped into by the migrants and the two aforementioned types of social capital, whose levels will either facilitate or hinder the transfer of knowledge from one country to the other. Moreover, even though I did not conceptualise it as such in Section 5.1, it is clear that the same thing occurs with regard to remittances, whose total level is of course a multiplicative function of the total income generated in the host country, the migrants' ability to capture a smaller or larger share of that income and the migrants' willingness to remit a smaller

82. Arguably, in an age when vast and increasing amounts of information are available all around the world through the internet, the importance of the role played by skilled expatriates in remitting codified knowledge may have more to do with the *selection* of the relevant information and its *adaptation* to the home country context, rather than with simply making it possible to access information.
83. Migration for Development in Africa, one of several temporary return programmes implemented by the IOM in various geographical contexts, aimed at tapping into the diasporas" skills in order both to fill temporary shortages of essential skills and to facilitate the dissemination of the tacit and codified knowledge held by the visiting diaspora members – hence, to foster capacity building, or human capital formation.
84. Transfer of Knowledge Through Expatriate Nationals, a UNDP programme akin to IOM's MIDA that aims at «tapping on expatriate nationals, who had migrated to other countries and achieved professional success abroad, and mobilizing them to undertake short-term consultancies in their countries of origin» (taken from the TOKTEN – Lebanon website: http://www.undp.org.lb/tokten/). The TOKTEN programme was initiated in the mid-1970s and has since been implemented in a number of developing countries.

or larger part of their own share in the host country's income to their country of origin. The difference with regard to human capital is that the latter can be disseminated (a positive-sum game), while income or wealth have to be shared (a zero-sum game).

Finally, as regards the impacts upon the unspecified production factors in this model, which I have conveniently bundled together under the label «TFP», it is worth recalling that they are left unspecified precisely for lack of sound empirical or analytical evidence on either the effects upon those factors or the impact of the changes in the stocks of those factors upon the level of output. As in Section 3.3, one can merely outline a few of the most likely or obvious ones and hope that more capable researchers will be able to identify or deduct them with greater precision. Thus, these most likely effects may include, for example, the potential for dissention between sending and receiving countries in the event of large scale emigration that we have already alluded to when discussing the impacts associated with exit. Whereas I was then referring to the potential deterioration in international relations associated with large-scale migration flows, in this case I am referring to that associated with large immigrant stocks, particularly in the case of poorly integrated communities and/or contexts of recession in the host country, a time when immigrants are most commonly used as scapegoats.

Another possible impact of emigration upon TFP that we already referred to in brief is that which concerns the effect of the possible emergence of a "culture of migration" upon the internal cohesion of the sending country, or its level of internal/sociocentric social capital. This allegedly negative effect would take place both at the macro societal level (commitment towards the home country may be neglected as a consequence of the generalised wish to leave in the future) and at the micro family or community levels (e.g. through the allegedly harmful effect upon the family structure in the event of one of the spouses migrating alone). I am rather sceptical both of the significance of these effects (be it the preponderance of the "contagion" determinant of migration and its alleged effects or the harmful nature of the impacts upon family and community structures[85]) and of the heuristic interest of the sociocentric concept of social capital. In any case, lacking the analytical tools to carry this discussion any further, I will leave it at this point and proceed to fill in the second column of our migration-development matrix, which summarises the migration-development nexus of the transnational type discussed throughout Chapter 5 (Table 3).

85. Indeed, in has been pointed out that in the case of migration by mostly male individuals, a window of opportunity can arise for the empowerment of women in sending areas by forcing or enabling them to take up new social, economic and political roles, much in the same way as in the case of a war (Peters, 2006).

Table 3. The impacts of the migrants presence overseas upon factor endowment (summary)

Productive factors impacted upon	*Logical moment in the migration process*
	t_1 (overseas presence)
Labour	• Reduction in the labour force to the extent that some individuals may choose to "live off" remittances instead of working;
Capital	• Remittances add to the sending country's capital stock to the extent that the associated multiplier effect is invested by the agents involved in the various multiplier rounds or saved bythose agents and channelled by the financial system to investment in the sending country; • Diaspora FDI and portfolio investment add directly to the sending country's capital stock; • Moreover, foreign savings can either "crowd out" or "free up" domestic savings for investment, depending on the contextspecific elasticity of total savings with regard to remittances and FDI;
Human Capital	• Typical "unproductive" spending of remittances often includes significant investments in health and education, i.e., human capital formation; • Increase in the human capital stock to the extent that the local labour force absorbs (through learning) the codified knowledge remitted by the diaspora and/or the tacit knowledge disseminated by diaspora members through temporary visits and consultancies.
Social Capital	• Gradual obsolescence of the social capital bridging sending country agents with the diaspora (S_1); • Gradual build-up of the social capital bridging the diaspora with host country agents (S_2); • Overall result for the sending country equal to: $\Delta S = [f(S_1{}',S_2{}')] - [f(S_1, S_2)]\ ,\ S_1 < S_1{}'\ \text{e}\ S_2{}' > S_2\ ,$ with S_1" and S_2" representing the stocks of "type 1" and "type 2" social capital in the event of migra-tion and S_1 and S_2 the counterfactual (without migration).
TFP	• Potential for dissention between sending and receiving countries (with impacts upon other types of flows); • Complex consequences upon family, community and social structures as a result of the prolonged absence of some of their members (whose positive or negative character is hard to determine *a priori*); • ...

6. RETURN

Return migration has been referred to by one author (Ghosh, 2000, cit. in Olesen, 2002:135) as «the great unwritten chapter in the history of migration». This is due to a number of reasons. In the case of periphery-core migration, first of all because, being a much less politically sensitive issue for developed countries than immigration, it has accordingly received much less attention from policy-makers, statistical bodies and researchers in those countries, which are the ones producing the bulk of the discourse, data and analyses of migration. Statistical bodies in developing countries of origin, for example, often lack the means to accurately survey the volume, characteristics and impacts of the return migration flows entering their countries[86].

Another likely reason why return migration is somewhat disregarded consists of the fact that, within the dominant immobility paradigm, return migration is arguably regarded as the reinstatement of normality. Whenever migration, and mobility more generally, are considered exceptional, problematic or abnormal phenomena, it follows logically that return migration will be consciously or unconsciously perceived not only as unproblematic, but indeed as a built-in solution to the problems associated with migration. For example, while the issue of immigrant integration in host countries is widely perceived as a complex and problematic issue, that of the (re)integration of return migrants in their societies of origin is often assumed to be rather straightforward, insofar as – regardless of the duration of their presence overseas and the experiences they have been subject to – their cultural characteristics and preferences are usually assumed to be overwhelmingly in line with those of the population of their area of origin. And yet, reintegration upon returning can be the source of much psychological angst for the individuals involved, cultural clashes in the workplace and other areas of social interaction and major social, economic and political change. For anecdotal evidence of some of these effects, one need only look at the integration problems faced by the (in some cases second-generation) Portuguese migrants deported to the Azores upon convictions in the USA, or at the major role played by foreign-trained political leaders in numerous post-independence African countries (Kapuscinski, 2001).

One final and more legitimate reason for the lesser visibility of return migration is the fact that its volume is necessarily smaller than that of the original migration flows. Regardless of their purported intentions upon

86. Indeed, remarks on the lack of updated, comprehensive and/or reliable data on return migration are customary in research papers dealing with specific case-studies (e.g., Nair, 1999; Silva, 1984; Thomas-Hope, 1999).

migrating, only some of the emigrants do return[87] and the number of those who do so on a permanent basis, i.e. without engaging in a new migration cycle some time afterwards, is of course even smaller[88]. Return migration on the aggregate is determined by a constellation of factors, some akin to those influencing migration in general, some specific to this type of migration.

In any case, insofar as it completes our assessment of the impacts of international migration for the sending countries, return migration does provide closure to our model – logical closure, of course, not chronological closure in the sense that all migrants eventually return (which they do not), nor even in the sense that return necessarily brings an end to the factor flows and impacts already identified with regard to the migrants" presence overseas (certain kinds of flows, e.g. retirement pensions, may continue after the migrant has returned to the country of origin). Thus, in order to complete our review of the migration-development nexus, this section analyses return migration within the framework adopted so far. It begins by discussing some of the specificities and determinants of return migration (section 6.1) and then identifies some of its most likely impacts upon the sending country's factor endowment (section 6.2). Unlike in the previous sections on exit and overseas presence, the impacts upon the stocks of the various production factors are not discussed in separate subsections. This is because some of these impacts, while characterised by a number of specificities, are in many ways symmetrical to those already discussed with regard to exit and therefore do not require as detailed an explanation.

6.1. Return migration and its determinants

Like migration more generally, so does return migration respond to a myriad factors. These have been summarised by Nair (1999:211) as «the volume of onward migration, the type of visa/work permit of the migrants, working and living conditions abroad and socio-political conditions in host countries». While quite comprehensive, this is of course a rather general enumeration that requires further specification[89].

87. Indeed, in many contexts, the vast majority does not return (e.g., for the case of Portuguese emigration, Monteiro, 1994; Silva, 1984).
88. This is not the same thing as saying that, in a given period, the volume of return migration cannot exceed that of emigration, which of course it can. What is necessarily true is that the number of migrants that eventually return is smaller than (or at most equal to) the number of those that originally left, and that the number of those who do so without re-migrating is smaller than (or at most equal to) the number of those that return.
89. Note that the aforementioned enumeration cannot be considered *fully* comprehensive: Thomas-Hope (1999:193) draws attention also to the importance of the «personal and domestic circumstances of the individual and his/her family, including the age and stage in

To begin with, return migration, again like emigration, can be either voluntary or involuntary[90]. Whereas involuntary emigration typically consists of refugee flows[91] involuntary return migration is most commonly the result of the period of the migrant's legal permanence in the receiving country coming to an end, particularly in the case of migration under temporary work contracts and temporary permanence permits. Hence, a first major determinant of both the probability of return migration among a country's emigrant population and its overall volume (which is obtained by multiplying this probability by the total emigrant stock) is, as correctly pointed out by the aforementioned author, the type of visa and/or work permit of the migrants (i.e., the institutional recognition of the either temporary or permanent nature of the migration process), along with level of rigour and effectiveness of the host country authorities in enforcing the deportation of irregular migrants.

However, this does not mean that migrants holding temporary visas or work contracts always end up returning to their country of origin. The phrase «there is nothing more permanent than temporary foreign workers», which has become something of an aphorism in migration circles (e.g., Martin, 2001), was coined in view of the fact that certain historical experiences of recruitment of temporary foreign workers in fact resulted in permanent migration, regardless of the will of the receiving country authorities. The foremost examples of this phenomenon – the US *bracero*[92] and German *gastarbeiter*[93] programs (id, ibid) – illustrate the fact that factors other than the type of visa or work permit awarded to the migrants are of relevance, namely the existence of persistent structural demand for foreign workers[94] and other institutional aspects of the host country's immigration

career and household life cycle», which is broader than the mere «working and living conditions abroad»; moreover, as we shall see, institutional factors in the host country other than the «type of visa/work permit» play into this equation as well.

90 I am, of course, well aware of the fact that the distinction between voluntary and involuntary migration is often blurred.

91. I.e., the movement of people «fleeing from and/or not being able to return to their country due to a well-founded fear of persecution» (from the UNHCR website: www.unhcr.org).

92. The US *bracero* program was implemented between 1917 and 1921 and again between 1942 and 1964 with the aim of recruiting Mexicans to temporarily fill jobs on US farms. Over 4,000,000 Mexicans were admitted into the US under this program (Martin, 2001).

93. The German *gastarbeiter* or guest worker program began in the 1960s with the aim of recruiting foreign workers, mostly from Turkey, Italy and Greece, to work for one or two years in Germany – thus providing much-needed labour for the post-war German economic expansion (Martin, 2001).

94. Martin (2001) argues that temporary guest worker programs in fact sustain that demand by «distorting» the labour market: the availability of cheap labour creates a disincentive to the adoption of more capital-intensive technologies. While this effect is certainly true, I cannot help commenting that characterising protectionism as the norm and a more liberalised labour market as «distorted» is rather strange (or then again, maybe not: few authors regard labour in as privileged a way as capital and goods).

and nationality policies (amnesties of irregular immigrants, access to naturalisation and family reunification). In the case of the recruitment of overseas contract workers by the oil-rich Persian Gulf countries from the 1970s onwards (Nair, 1999), temporary foreign workers have certainly been "less permanent" than in the German and US cases, in particular due to more effective border controls and more rigid (and less humane) handling of issues such as family reunification[95].

The variety and complexity of the factors that influence the probability and volume of *voluntary* return migration are probably even greater. The individual decision to return to the country of origin basically depends on an assessment of the relative advantages and disadvantages of returning versus staying abroad, under the light of the characteristics and preferences of the individual and his/her family. The decision is itself most commonly made not by the individual in isolation, but rather in the context of the household, whenever the concept applies, as a decision-making unit. Moreover, this assessment takes into account not only the differential returns to the production factors held by the individual or the household, but also many other economic and extra-economic considerations. Indeed, even though the migrant's endowment of the various forms of capital and/or their respective returns in both the sending and receiving countries may undergo decisive changes during his/her presence abroad, the fact that return migration more often than not «runs counter to the gradient of traditionally accepted indices of development, including personal incomes» (Thomas-Hope, 1999:185) bears witness to the predominance of these other economic and extra-economic considerations[96].

By other economic considerations, I am specifically referring to aspects such as location-specific consumption patterns (Lucas, 2005), which clearly play a predominant role for instance in return migration upon retirement: income maximisation definitely plays a lesser role (if any at all) in this case than the maximisation of the utility derived from the accumulated savings or current retirement pensions (upon which the cost of living and location-specific consumption opportunities impinge significantly).

95. The persistent structural demand for foreign workers in these countries has mostly been met by a continuous ebb and flow of temporary workers, rather than by them becoming permanent.
96. Note that, as far as policy is concerned, this does not necessarily mean that economic incentives cannot play an effective role in encouraging return migration, *which they can* (suffice it that the incentive thus created be larger than the net advantages of remaining abroad, as perceived by the individual and/or his/her family in the absence of the incentives).

As for the extra-economic variables, these will typically range from aspects such as the social and political conditions in the country of origin (Olesen, 2002; Thomas-Hope, 1999) to extra-pecuniary work conditions and training and career opportunities, which have been found to play a very important role in the attraction (and retention) of highly-skilled returnees (BBC News, 2005b). They will also include aspects such as the level of social integration in the receiving country and the strength of the functional and emotional attachments both to persons in the sending country and to the homeland itself[97]. In addition to these, Thomas-Hope (1999:193) rates «the conditions for enjoying a healthy environment, (...) the level of crime, (...) and attitudes in general towards returning migrants» as «highly significant in the decision (to return)» by various types of returning migrants.

Drawing on empirical evidence, Cerase (1974, cit. in Olesen, 2002 and Ammassari and Black, 2001) has developed a useful and interesting taxonomy of return motivations. The four typical categories suggested by this author are (id, ibid:137): i) *return of failure*: «migrants who could not find the job necessary to survive and send back remittances»; ii) *return of conservatism*: «migrants who realized early on that they could not thrive in a different culture away from family and friends»; iii) *return of retirement*: migrants who «want to retire comfortably in the home country»; and iv) *return of innovation*: migrants who, having acquired different forms of capital abroad, want to use that capital to take advantage of business or work opportunities in the home country. If we add to these a fifth category, consisting of the *return of necessity* of those returning, either of their own will or being deported, upon completion of their legal term of stay, we arrive at a quite general picture of how the various institutional, economic, social, political and other variables presented so far combine in different ways to determine the propensity to return of different categories of migrants and the overall level of return migration[98].

In particular, it seems reasonable to admit that return of failure is mostly a function of the general economic situation in the host country and the migrants' endowment of marketable skills, although institutional aspects such as the level of protectionism in its labour market (as reflected for

97. This explains the phenomenon of post-mortem migration, which albeit of little concern to us in the context of this dissertation is nevertheless a very interesting and telling form of migration.
98. Note that, as with most other taxonomies, individual cases may not fit neatly it only one of these categories – individual motivations to return are varied and complex and may combine elements associated with two or more of the types of return migration presented above. However, on the aggregate, these categories certainly have some heuristic value – especially if compared to regarding return migrants as a single homogeneous group.

example in the issue of skills' recognition) also play a relevant role. On the aggregate, return of failure can also be expected to be negatively correlated with the volume and accuracy of the information available in the sending country at the moment of onward migration regarding labour market opportunities in the host country. It will also occur mostly in the early stages of the migrants' presence abroad.

In turn, return of conservatism is mostly responsive to variables such as the differential quality of life in the two countries as perceived by the migrants, location-specific consumption preferences and the ties and attachments with persons in the two countries (which in turn can be expected to be positively correlated with two types of social capital discussed in section 5.2). It too can be expected to occur mostly in the early stages of the migrants' presence overseas (i.e., on the aggregate, it can be expected to be highly correlated with outmigration with a lag of a few months to a few years).

As regards return of retirement, it seems that this is probably the category of return migration least associated with economic variables, save for the cost of living. As we have mentioned, it is the social and political conditions in the country of origin, along with other aspects influencing the migrants' perception of the quality of life there more generally (climate, incidence of crime,...) that likely influence this type of return migration the most. Like return of conservatism, return of retirement will also likely be associated with the two types of social capital discussed so far, but unlike that other form of return migration, on the aggregate it can be expected to be correlated with migration outflows with a lag of up to 30 or 40 years, depending on the age characteristics of the original migration flows.

Up until now, it would seem that return migration is of little interest from a policy perspective, insofar as all the categories of return migrants discussed so far seem to respond first and foremost to variables exogenous to policy. However, return of innovation – «the group most interesting to development practitioners» (id, ibid:137) – provides the exception. This type of return migration will likely be strongly associated not only with the general economic, social and political conditions in the home country (quality of governance, human rights situation, economic prospects), but also with economic and other incentives specifically aimed at this potential group (fiscal benefits, relocation subsidies, duty exemptions, training and career prospects, work conditions, etc[99]). These are of course especially good news considering that it is this category of return migrants that can be

99. See Chapter 7 for a more comprehensive survey of policies aimed at attracting skilled expatriates.

expected to have the greatest endowment of the various forms of capital. Still, it should be borne in mind that numerous exogenous factors play into this equation as well, including the career prospects, income and work conditions, etc, in the receiving country – which often led to migration in the first place –, as well as the stage in the life cycle of the individual and his/her family: for example, Thomas-Hope (1999:190), based on empirical evidence from return migrants to Jamaica, found that «it is better to encourage professionals to return (...) early on in their migration life cycle, largely because they are more likely to respond to the incentives at that stage, before they have become fully established in their careers and the associated income and pension structures at the migration destination».

Finally, return of necessity is, as we have seen, mostly determined by political and institutional factors in the receiving countries – in turn associated in varying ways with those countries' economic and demographic trajectories. However, even deportees can decide to move on to another destination instead of returning to their home country. Thus, the social and political conditions (particularly the human rights situation[100]) at the origin should be expected to be significant determinants of all types of return migration.

Having completed our overview of the specificities and determinants of return migration and before moving on to the discussion of its impacts, one last word of caution is in order as regards researching return migration to note that the actual proportion of migrants who do return is often weakly correlated with their declared intention to do so *both* at the original moment of migration *and* during the various stages of the migrants' presence away from their country. This is not only due to the fact the migrants' original intentions often undergo significant changes as they become increasingly integrated in the host society and less attached to the home country, but also because the presence of the intention to return in the migrants' discourse in many cases has a mythical character and rarely materialises (Cohen and Gold, 1997; Monteiro, 1994). As documented by these authors, the myth of return provides «a very practical solution to the dilemma of being part of two, often conflicting, social and cultural contexts», whose purpose is mainly to serve as an identity marker (and mode of exclusion) for the emigrated communities (Cohen and Gold, ibid:376), and therefore should not be taken at face value by the researchers and policy-makers interested in return migration.

100. As stressed by Sethi (1998, cit. in Olesen, 2002:137), «when the human rights situation improves, return migration starts, regardless of the fact that the economic conditions in the home country may be unchanged».

6.2. The consequences of return migration

The impacts of return migration upon the factor endowment of the sending country can be summarised as belonging to two main categories: those of a more or less symmetrical nature with regard to the impacts of onward migration (supra, Chapter 3) and those, which assume the form of opportunity costs, having to do with the fact that return migration brings a stop to most (though not all) of the factor flows associated with the migrants' presence abroad. Since most of these effects have already been discussed, *mutatis mutandis*, previously in this dissertation, I shall now simply refer to them and focus instead on the specificities associated with the fact that they are brought about by return migration, which is a type of migration characterised by «double selectivity» (Lowell, 2002)[101].

Thus, return migration brings about an increase in the sending country's labour stock to the extent that those returning are economically active. This, of course, will typically be the case among all categories of return migrants save for retirement returnees (who may in some cases take up some kind of dependent or independent work but most often will not). As we have already seen, the consequences will differ according to whether or not the Lewis concept of surplus labour applies – if it does, and if the returning workers do not possess any particular skills (an aspect that in analytical terms refers to human capital), then this addition to the labour stock will not bring about an increase in the country's output capacity, at least until the production system adjusts to absorb the "excess" labour supply. On the other hand, assuming that the increase in the labour supply is indeed relevant and accordingly brings about a decrease in the wage levels, countervailing effects symmetrical to the ones already discussed can be expected to occur – namely, a possible decrease in the labour force participation rate and/or further onward migration.

Second, return migration is usually associated with the transfer of the returnees' accumulated savings. As far the accounting of international capital flows is concerned, these may not be distinguishable from the remittances sent while the migrants were away, but they are usually relevant nonetheless – particularly in the case of retirement returnees, who

101. In the sense that the characteristics of the emigrants (age, education, wealth, etc) will typically differ from those of the sending country population in general and that those of the returning migrants will also typically differ from those of the emigrants as a group. Referring to double selectivity to imply that emigrants are on average more skilled than the home country population (which is usually the case) and that returnees are on average also more skilled than the emigrant population (which is disputable) is a different and less unanimous usage (Chiswick, 2000; Lowell, 2002).

may chose to transfer the bulk of their savings in one go. Of course, whenever the return has been planned all along – for example in the case of «NELM» migration aimed at overcoming the household's lack of access to credit –, it is likely that the repatriated savings at the time of return will be relatively less significant than in those cases in which the decision to return is made at a later stage. In any event, this additional transfer of savings will, as we have seen in the chapter on remittances, add to the sending country's capital stock to the extent that it is invested and/or saved and channelled by the financial system to investment by others in the country, not only by the returnee himself but also by the agents involved in the subsequent rounds of the multiplier. Finally, depending on the elasticity of total savings with regard to transferred foreign savings, the latter can either crowd out or free up domestic savings for investment. In a micro-level illustration, the latter case will occur if, for example, the savings accumulated and brought back by a returning member of the household enable the household to make an investment that also draws on the domestic savings of other members of the household and which would not have been possible had it not been for the migrants' presence abroad.

Third, return migration will bring about a significant addition to the sending country's human capital stock (commonly referred to as one of the "brain gains" – supra, section 3.2) to the extent that the returning migrants already possessed significant skills and competences when they originally migrated or, alternatively, acquired them abroad. This depends on the characteristics of the selectivity of return migration, which remains a much more unsettled issue than the selectivity of emigration, since it depends on a number of parameters (Lowell, 2002). While some of the returning migrants may have pursued further studies or acquired a variety of skills through their professional activity while in the destination country, others may in fact have experienced deskilling through lack of practice in the qualified activities for which they were originally trained[102]. On the other hand, the usefulness and economic value of skills is in many cases context-dependent and location-specific: for example, specialised workers may find their skills to be utterly useless upon returning if, for example, those skills are technologically complementary to specific forms of physical capital.

In any case, what is clear is that, from among our categories of returning migrants, it is the returnees of innovation that clearly bring about the most significant increase in the human capital stock. Retirement returnees will most commonly be economically inactive upon returning and returnees of failure, conservatism and necessity will most likely have had either a rela-

102. The issue of skills' recognition plays an important role in this respect.

tively short-term presence in the host country or little opportunity to acquire significant skills and competences while away. On the other hand, making the most of the specifically scientific and technological expertise of returning migrants may require creating the conditions for their agglomeration. Korea possibly provides the foremost example of a country drawing upon the skills of its returned skilled expatriates to consolidate its scientific and technological system using that sort of strategy (O'Neil, 2003; Wickramasekara, 2003).

Finally, countervailing effects may also occur with regard to human capital gains: disincentives to skilled immigration and/or the acquisition of skills by the home country population will arise if the expanded supply of human capital results in a decrease in the economic returns to those skills or if demand for those skills is rigid (for example, if the scientific and educational institutions in the home country can only accommodate a fixed amount of professionals).

The other category of impacts associated with return consists of its opportunity costs. The return marks the beginning of the end of the transnational linkages associated with the migrants' presence overseas. That is to say, all the effects upon the stocks of the various production factors described in section Chapter 4 and summarised in Table 3 will typically stop or start to wane upon the migrants' return. This is mostly significant with regard to remittances – even though retirement pensions and other income flows may continue to flow –, the transfer of codified and tacit knowledge (with their dissemination effects upon the home country's human capital stock) and the bridging properties of the dyadic link between the diaspora and the home country, on the one hand, and the host country, on the other. As regards the latter, return migration can be conceptualised as bringing about the beginning of a process symmetrical to the one described in the section on transnational linkages. If we continue to think of returnees as a group distinct from the remaining home country population, the "type 2" social capital bridging them with agents outside the country will gradually obsolesce as their "type 1" social capital increases.

In other words, as with the original emigration, there are opportunity costs to return migration that must be taken into account in analysing its impacts, as well as in the policy-makers' decision to encourage it. While return migration will add to the source country's labour and human capital stocks, and likely be accompanied by the transfer of significant accumulated savings, it will also bring an end (or at least the beginning of the end) to the diaspora's role in tapping into the wider world's financial and knowledge resources. As shall be discussed in further detail in the next chapter, a careful assessment of the two implicit alternatives (and the instrumental variables influencing them) is necessary in order for policy not to result in counterproductive outcomes.

Before filling in the last column of our migration-development matrix (Table 4), it is interesting to refer to two additional impacts of return migration of a broader and more complex nature, which in our model concern the residual by virtue of that very complexity. One concerns the difficulties of integration possibly experienced by the returnees at the micro level, in their families, jobs and communities. The other has to do with their role in bringing about social, cultural and political change: return migrants have consistently been found to be major agents of social and cultural innovation, introducing changes in attitudes, preferences and behaviours that may facilitate development (or hinder it, for that matter). As the example of numerous prominent foreign-educated leaders illustrates, return migrants «invariably play leadership roles in their community» (Thomas-Hope, 1999: 196, referring to the Jamaican case) and «in some countries (...) have played an important role in reforming domestic policies, (through which they) can contribute to shaping a better climate in countries of origin in general» (de Haas, 2005:5).

Table 4. The impacts of return migration upon factor endowment (summary)

Productive factors impacted upon	*Logical moment in the migration process*
	T_2 (return)
Labour	• Labour gain (less significant in the case of retirement returnees; consequences depend on the labour market's capacity to productively employ the additional labour); • Possible countervailing effect depending on the effect of the latter increase in the labour supply upon the wage level and on the price-elasticity of labour supply;
Capital	• Lump transfer of overseas savings by returning migrants, (particularly significant in the case of retirement returnees and prospective "innovation returnee" investors) add to the sending country's capital stock to the extent that they are invested (and/or saved and channelled to domestic investment) by the return migrants and the agents involved in the subsequent multiplier rounds; • Return migration brings an end to most income transfers from the host country (although transfers of retirement pensions, interests on investments, etc. may continue);
Human Capital	• Brain gain of a greater or lesser significance depending on the selectivity of return migration, the location-specificity of skills and the possible deskilling while away; • Possible countervailing effect depending on the effect of the latter increase in the supply of human capital upon the returns to that factor and on the price-elasticity of supply of human capital; • Return migration brings an end to the transfer of codified knowledge from emigrants in the host country and to the dissemination of tacit knowledge from visiting diaspora members.
Social Capital	• Return migration marks the beginning of the obsolescence of the sending country's stock of «bridging» social capital mediated by the diaspora.
TFP	• Return migrants are widely recognised as major agents of social, cultural and political change; • Possible social and cultural clashes associated with the reintegration of return migrants in their families, work environments and communities; • ...

7. TO SETTLE THE UNSETTLED: MODELLING THE MIGRATION-DEVELOPMENT NEXUS

7.1. A formal representation of the migration-development nexus

«Dieu a inventé le chat pour que l'homme puisse caresser le tigre»
(proverb of unknown origin, cit. in Ramonet, 2006)

The aim of this chapter is to present and explore a tentative version of the structure of a formal model representing the migration-development nexus. As has been mentioned on several occasions throughout the text, the usual approaches to this issue have been rather adhocratic and ridden with *a priori* judgements on the overall positive or negative direction of the nexus. Integrated approaches are hard to come by and, to my knowledge, comprehensive formal models are virtually inexistent. A formal model in economics – which is «a theoretical construct that represents economic processes by a set of variables and a set of logical and quantitative relationships between them»[103] –, though certainly not immune to the particular ideological and epistemological stance of its designer, at least has the advantage of reducing the level of ambiguity.

However, a model is only as good as its variables and functional relationships and, of course, omissions and misspecifications are as dangerous in mathematical form as in their discursive presentation – possibly even more dangerous, given the added esoteric character and illusion of expertise associated with mathematical language. In any case, as we shall see, the development of a formal model in this particular context certainly has its advantages. In particular, it i) makes it easier to highlight the intricacies involved in most of the linkages; ii) provides a way of "linking" the issue of the migration-development nexus (which we have been discussing so far) with that of the policies impinging upon that nexus (on which more in the next chapter); iii) illustrates the cumulative nature of the dynamics of convergence or divergence associated with migration and development; and iv) hopefully lays the foundations for more sophisticated and better specified models to allow for an objective assessment of the beneficial or detrimental character of emigration in a specific context and ultimately make predictions on the scale of the various effects (which is the litmus test of the appropriateness of any model).

In order to outline the structure of this model (it is not an *actual* model because most functional relationships are not specified), I shall basically begin by formalising the linkages between international migration and

103. Taken from the Wikipedia entry «Model (economics)» (www.wikipedia.org).

sending country development described in the previous chapters. Again, bear in mind that we are only concerned with *economic* development and that even economic development is being approximated by productive capacity as a function of the stock of a few specified production factors. We are thus leaving out a series of crucial aspects of development broadly considered, including the distribution component of welfare, political and institutional change, civic liberties or human capabilities. However, the limitations that arise out of focusing on a limited number of aspects and assuming various restrictive assumptions are the flipside of the coin to the advantage of models, which is to turn complex real phenomena into more graspable representations. In this sense, models are analogous to the cat of the quote in epigraph, created so that man might caress the tiger. The problem, as we shall see, is that the number of relevant variables and intricacies involved in the migration-development nexus is such that even the "cat" is a fairly savage one – and caressing it is not an easy task.

With these caveats in mind, let us take up the task of formally representing the migration-development nexus. The general idea of the model that I shall present in the following pages consists of using the production function to link emigration in the present with the level of output in the future. Emigration brings about changes in the stocks of the various production factors through a variety of channels. In turn, the magnitude and direction of those changes depends on a series of intermediate variables, which ultimately depend on a set of instrumental and parametric variables. Therefore, by representing the future level of output as a function of the future stocks of the various production factors and the future stock of each of the production factors ultimately as a function of the level of emigration along with a series of other instrumental and parametric variables, we should be in possession of a formal representation of the migration-development nexus. Due to the large number of factors that we have seen in the previous chapters to affect the impact of emigration, we shall be using a considerable number of variables.

Thus, the central and most fundamental equation in the model is, as mentioned, the production function (1), which describes how a country's stocks of various different specified inputs – labour, capital, human capital and social capital – in a given period t (usually a year) are combined with the unspecified and residual total factor productivity in a specific way (the functional form of the production function) in order to produce the country's total output in that period. Since the goal is for the model to be as general as possible, the functional form is left unspecified. Bear in mind, however, that aspects such as the marginal product of labour (which is crucial for Lewis' hypothesis), diminishing returns to capital (which lay at the basis of

Solow's conclusion) or increasing returns to human capital (in accordance with the Romer framework) result directly from the production function and therefore should be accordingly reflected in the specification of its actual functional form. Thus, our first equation is:

$$Y_t = f\left(TFP_t, L_t, K_t, H_t, S_t\right) \tag{1}$$

where Y_t represents the sending country's total output in period t, TFP_t is the Total Factor Productivity residual and L_t, K_t, H_t and S_t stand for the country's total stocks of labour, capital, human capital and social capital in the period, respectively. Now, despite the occasional and tentative remarks on the effects of emigration upon total factor productivity in the previous chapters, those conclusions do not enable us to make any definitive statements on either the direction or the intensity of those effects. Thus, a restrictive assumption (2) is made that TFP is both unrelated to emigration and unchanging from period to period:

$$TFP_t = \overline{TFP} \tag{2}$$

Instead, we shall focus on the impacts of emigration upon the remaining production factors L_t, K_t, H_t and S_t and, through them, upon the level of output in the subsequent periods. Now, in the real world, emigration likely occurs to a lesser or greater extent *in every period* and *each* of those emigration flows has repercussions in the subsequent periods. However, allowing for emigration to occur in the model in every period would make it particularly hard to disentangle the results of emigration in one period from those of emigration in the other periods. Another simplifying assumption is thus made that emigration only occurs in the period t=0. Its volume is modelled (equation 3) as an unspecified positive function of the total original labour stock L_0, a vector $\hat{\varepsilon}$ of variables that are dependent on policy (policy incentives to emigration) and a vector $\overline{\varepsilon}$ of variables that are independent from policy (which include the neoclassical, NELM and other determinants of migration that the sending country policymakers cannot control, at least in the short run)

$$E_0 = f\left(L_0, \hat{\varepsilon}, \overline{\varepsilon}\right) \tag{3}$$

On the other hand, at the moment in which E_0 occurs, the existing stocks of all the production factors are already given, so we can write:

$$L_0 = \overline{L_0} \tag{4}$$

$$K_0 = \overline{K_0} \tag{5}$$

$$H_0 = \overline{H_0} \tag{6}$$

$$S_0 = \overline{S_0} = 0 \tag{7}$$

Equation (7) reflects the assumption that there is zero initial emigrated population, i.e., no emigration has occurred in the past. Since S_t in our model consists of the stock of the linkages bridging the sending country with the rest of the world through its diaspora, the assumption that no previous emigration has occurred yields $S_0 = 0$.

Now, drawing on the migration-development linkages with regard to the labour stock summarised in Tables 2, 3 and 4, we can also write our first composition equation (8):

$$L_t = L_0 - E_0 + Lg_0 - Ld_t + \sum_{i=1}^{t} \left(Lr_i - Ll_i \right) \tag{8}$$

which states that the country's labour stock in the period t is equal to its initial labour stock L_0 minus the volume of initial emigration E_0 (an implicit simplifying assumption is being made that all emigrants are economically active), plus Lg_0 (which consists of the countervailing effects of the departure of the migrants, which are assumed to occur simultaneously with emigration itself in the initial period; the «g» in Lg_0 stands for «gain»), minus Ld_t (which consists of the persons that in the period t are "displaced" out of the economically active labour force in the period through the effect of remittances), plus the sum of the economically active returnees Lr_t in all the previous periods discounted of the countervailing effects Ll_t (deemed simultaneous) occurring in each of those periods. Ld_t is expressed in *net* terms (i.e., its own possible countervailing effects have already been discounted), which is why no explicit countervailing term appears.

As regards these countervailing effects, it is worth mentioning again that the reason why they occur consists of the fact that changes in the relative scarcity of a factor (save for the case in which their marginal product equals zero) brings about a change in the relative prices of all the factors and thus creates a (dis)incentive for the inflow or outflow of all the factors. In the case of labour, this corresponds to further in- or outmigration and/or the entry or exit of economically (in)active persons into or out of the labour force. Again for simplifying purposes, restrictive assumptions are being made that those compensatory effects occur simultaneously (i.e., only in the same period) and only with regard to the production factor that motivated the change in relative prices in the first place (e.g., an increase in the labour stock is immediately compensated by a partial concomitant decrease in that same labour stock, rather than by an inflow of capital, human capital or social capital). Thus, the countervailing effect Lg_0 is deemed a direct function of E_0 and occurs in the same period.

$$Lg_0 = f(E_0) \qquad (9)$$

The composition equation (8) also required that we introduced a few other new variables – Ld_t, Lr_t and Ll_t – that require further elaboration. As already explained, Ld_t is equal to the volume of labour that was originally a part of L_0 but which has been "displaced" out of the labour force in the period t by virtue of the fact that some persons can afford to "live off" remittances. Therefore, Ld_t can be described as a function of the volume of remittances (G_t) in the period:

$$Ld_t = f(G_t) \qquad (10)$$

In turn, Lr_t consists of the economically active persons returning to the home country in the period t. It differs from total return (referred to as R_t) insofar as some of the returning migrants are retirement returnees, which are assumed not to make any contribution to the labour force L_t. We can write this thus:

$$Lr_t = R_t - R_{3t} \qquad (11)$$

where R_t represents total return migration and R_{3t} stands for retirement return migration (the *third* reason for retirement in Cerase's taxonomy).

Finally, the "labour loss" (Ll_t) countervailing effect to the sudden increase in the labour stock brought about by the influx of returning migrants is modelled as occurring simultaneously and as a direct function of the volume of economically active return migration in the period:

$$Ll_t = f(Lr_t) \tag{12}$$

As for the *total* return migration flow in the period t (R_t), we define it (equation 13) as the aggregate of five different flows in that period, corresponding to the four categories of returning migrants in Cerase's classification, to which I have added a fifth category of my own (return of necessity). Thus, in any period t, we have five different types of return migration flows – return of failure (R_{1t}), return of conservatism (R_{2t}), return of retirement (R_{3t}), return of innovation (R_{4t}) and return of necessity (R_{5t}) –, which are assumed, for the sake of simplification, to be independent of each other and to add up to total return migration (i.e., no other reasons for returning are "allowed"):

$$R_t = R_{1t} + R_{2t} + R_{3t} + R_{4t} + R_{5t} \tag{13}$$

This might have closed the "labour" block of the model were it not for the fact that: i) we have not yet specified the determinants of return (more on which in equations 21-31); and ii) equation (10) described the volume of labour displaced by remittances in each period (Ld_t) as a function of the total volume of remittances in that period (G_t). Given that remittances are endogenous to the model, we must therefore specify the variables upon which they depend (the functional form is left unspecified for the sake of generality):

$$G_t = f\left[\left(E_0 - \sum_{i=1}^{t-1} R_i\right), Y_t^*, hd_t, s2_t, \vartheta, g_t\right] \tag{14}$$

Equation (14) basically states that the total volume of remittances in the period t is a function of six different variables. The first (the expression between brackets) is the total remaining emigrant population in the period t, which is equal to the original emigration E_0 minus the sum of return migration taking place in the previous periods[104]. The second variable, Y^*_t, consists of the total income generated in the host country (we are assuming the existence of only one destination country for the sake of simplification). hd_t is equal to the average human capital endowment of the members of the diaspora (or remaining emigrants) in the period t. Likewise, $s2_t$ consists of the average endowment of "type 2" social capital of the members of the diaspora (or remaining emigrants) in the period t. ϑ is the average propensity to save of the remaining emigrants, whereas g_t represents the average propensity to remit, again of the remaining diaspora members. The reasoning behind this equation is the following: i) the total volume of remittances in period t is equal to the product of the total remaining emigrant population in that period by the average remittance in that period; ii) the average remittance in the period t is a function of the average capacity and propensity of the remaining migrants to capture and remit a smaller or greater share of the income of the host country in the period (Y^*_t); and iii) the remaining migrants" average capacity and propensity to earn and remit income is a positive function of their average human capital endowment (hd_t), their average endowment of "type 2" social capital ($s2_t$, which is a measure of the average degree of integration in the host country), their average propensity to save instead of consuming (ϑ_t), and their average propensity to remit out of their savings (g_t)[105].

The following definition equations are the formal representation of some of the average variables definitions that we have just referred to:

$$hd_t = \frac{Hd_t}{\left(E_0 - \sum_{i=1}^{t-1} R_i\right)} \qquad (15)$$

104. Specific problems arise out of modelling events that occur in continuous time as if they occurred in discrete moments, one of which consists of the need to specify whether the flows that take place in each period occur in the beginning or the end of that period. In particular, from the assumption that return migration occurs in the beginning of the period follows that the economically active return migrants of that period will add to the sending country's labour force but not to the diaspora's. Conversely, if return migration was modelled as occurring in the end of the period, the return migrants of that period would add to the diaspora's labour force but not to the sending country's. This problem is only eliminated when the duration of the considered periods is shortened to the point of reaching its limit (zero), in which case the summations ($\sum$) in all the equations involving them would have to be substituted with integrals ($\int$). In this model, the option is for a "discrete moments" approach and all the flows are assumed to occur in the *beginning* of the period.

105. Carling (2005) presents a «basic model of remittance flows» that is similar to this part of our model in that the amount of remittances is described as a function of the available pool of resources as well as of the migrants" propensity to remit.

i.e., the average human capital endowment of the diaspora members in the period t (hd_t) equals the total stock of human capital of the diaspora in period t divided by their number (which is equal to the original emigration E_0 minus the sum of total return migration in the previous periods). Likewise,

$$s2_t = \frac{S2_t}{\left(E_0 - \sum_{i=1}^{t-1} R_i\right)} \tag{16}$$

defines the average endowment of "type 2" social capital of the diaspora members in the period t (or $s2_t$) as the total stock of "type 2" social capital of the diaspora in period t divided by their number and

$$s1_t = \frac{S1_t}{\left(E_0 - \sum_{i=1}^{t-1} R_i\right)} \tag{17}$$

defines the average endowment of "type 1" social capital of the diaspora members in the period t (or $s1_t$) as the total stock of "type 1" social capital of the diaspora in period t divided by their number.

The total level of income in the host country in all the periods is deemed exogenous, or:

$$Y_t^* = \overline{Y_t^*} \tag{18}$$

and, in order to complete our description of the variables on which the volume of remittances (G_t) depends, we have that:

$$\vartheta = f\left(\hat{\vartheta}, \overline{\vartheta}\right) \tag{19}$$

which states that the average propensity to save of the remaining diaspora members is a function of a vector $\overline{\vartheta}$ of exogenous variables that are independent from home country policies (e.g., the cost of living in the receiving country) and a vector $\hat{\vartheta}$ of variables that can be used as instruments by policymakers in the home country (such as mandatory saving requirements or special interest bonds for emigrants). This propensity and its determinants are deemed constant across the periods so as not to further complicate the model.

Finally, the average propensity to remit out of the saved income in the period t is regarded as a function of the average endowment of "type 1" social capital (which measures the quantity and quality of the relationships between the diaspora and agents in the home country), a vector $\bar{\gamma}$ of parametric variables (e.g., ease of access to money transfer services in the receiving country), another vector $\hat{\gamma}$ of instrumental variables (including the level of competition in the market for remittance transfers), as well as the level of economic activity in the home country in the period Y_t. The inclusion of Y_t has to do with the fact that no distinction is being made between "classical" remittances and migrant investment. Therefore, it is reasonable to expect that migrants will invest more in their home country when the economy is recovering or taking off. On the other hand, "classical" remittances are known to have counter-cyclical properties, so the overall direction of the relationship will probably vary from case to case. Hence, we have:

$$g_t = f\left(s1_t, \hat{\gamma}, \bar{\gamma}, Y_t\right) \tag{20}$$

Let us now turn to the issue of return migration. Equation (13) stated that total return in the period t is equal to the sum of five different return flows, motivated by failure, conservatism, retirement, innovation and necessity, respectively. Equations (21) through to (25) simply state that each of these return flows is equal to the average probability in the period t of returning for that respective reason multiplied by the total remaining emigrant population (which is in turn equal to the original emigration E_0 minus the sum of return migration in the previous periods):

$$R_{1t} = r_{1t} \times \left(E_0 - \sum_{i=1}^{t-1} R_i \right) \tag{21}$$

$$R_{2t} = r_{2t} \times \left(E_0 - \sum_{i=1}^{t-1} R_i \right) \tag{22}$$

$$R_{3t} = r_{3t} \times \left(E_0 - \sum_{i=1}^{t-1} R_i \right) \tag{23}$$

$$R_{4t} = r_{4t} \times \left(E_0 - \sum_{i=1}^{t-1} R_i \right) \tag{24}$$

$$R_{5t} = r_{5t} \times \left(E_0 - \sum_{i=1}^{t-1} R_i \right) \tag{25}$$

Of course, this requires that we specify the determinants of each of these average propensities or probabilities r_{kt} (k=1,...,5). That is the content of equations (26) through to (30).

$$r_{1t} = f\left(hd_t, Y_t^*, s2_t, \hat{\rho}, \overline{\rho}\right) \tag{26}$$

Equation (26) describes the likelihood of returning for the "failure" reason in the period t as a function of i) the average human capital endowment of the diaspora members in that period (low-skilled emigrants are more likely to fail in securing the job and conditions that led them to migrate); ii) the level of economic activity in the destination country (more dynamic economies are more likely to have greater demand for labour); iii) the average level of integration of the emigrants in the host society as approximated by their stock of "type 2" social capital (which, as we shall see, increases with time, which indirectly results in r_{1t} decreasing with time); iv) a vector $\hat{\rho}$ of instrumental variables that influence the general attractiveness of return migration (which includes policy incentives to return); and v) a vector $\overline{\rho}$ of parametric variables that influence the general attractiveness of return (including the attitude towards returnees in the home country, the level of crime, the climate, etc.).

$$r_{2t} = f\left(s1_t, s2_t, \hat{\rho}, \overline{\rho}\right) \tag{27}$$

Equation (27) characterises the average propensity to return in the period t for the "conservatism" reason as i) a positive function of the average social ties and linkages with the home country as approximated by $s1_t$ (the greater the ties and linkages binding the emigrants with the home country, the greater the likelihood of returning due to "missing" home and being unable to cope with distance); ii) a negative function of $s2_t$ (the better integrated the migrants are on average, the less likely their "conservatism" return is); and iii) $\hat{\rho}$ and $\overline{\rho}$, the aforementioned instrumental and parametric variables that influence all types of return.

$$r_{3t} = f\left(s1_t, s2_t, \hat{\rho}, \overline{\rho}, t, Age\right) \tag{28}$$

$$Age = \overline{Age} \tag{29}$$

In turn, equation (28) describes the likelihood of retirement return migration as a function of $s1_t$ (the greater the social ties with the home country, the greater the likelihood of wanting to retire there), $s2_t$ (the greater the social ties with the *host* country, the lesser the likelihood of wanting to retire back home), the usual variables $\hat{\rho}$ and $\overline{\rho}$ and an additive joint function of time (t) with the age distribution of the original emigrant population (Id) – as might obvious, people only retire at a certain age, which is why the likelihood of retirement return migration depends on how old the original migrants were and on how much time has passed by since the original emigration flow. The age distribution of the original emigrant population is deemed exogenous (equation 29).

$$r_{4t} = f\left(Y_t, s1_{t,} s2_t, \hat{\rho}, \overline{\rho}\right) \tag{30}$$

As for the likelihood of return of innovation in the period t, it is described as a function of $s1_t$ and $s2_t$ (basically in the same way as in the case of return of conservatism, r_{2t}), the usual variables $\hat{\rho}$ and $\overline{\rho}$ (which, bear in mind, include policy incentives to return in the case of the former and the availability of jobs back home in the case of the latter) and the level of economic activity in the sending country in the period t (which allows for the prospect of greater returns on the financial and human capital endowment of the innovation returnees). The likelihood of return of innovation is *not* explicitly described as depending on hd_t (human capital endowment of the diaspora members) or on any of the variables that influence the migrants capacity to capture a lesser or greater share of the income generated in the host country because it is not clear whether more skilled and/or richer migrants will have a lesser or greater propensity to return in order to apply their skills and/or capital back home or, alternatively, whether they will they will feel more or less inclined to employ those forms of capital in the destination country instead.

$$r_{5t} = f\left(\breve{\rho}, \hat{\rho}, \overline{\rho}, hd_t\right) \tag{31}$$

Finally, equation (31) states that the likelihood of return of necessity is basically a function of a vector $\breve{\rho}$ of exogenous variables of a political and institutional nature (softer or more stringent immigration laws in the host country, lesser or greater enforcement, etc), the average human capital endowment of the diaspora members hd_t (immigration laws in most destination countries are softer on skilled immigrants) and the usual variables $\hat{\rho}$ and $\overline{\rho}$ (because even though it might be argued that returnees of necessity would return anyway and therefore do not respond to incentives, the truth is they can always decide to move on to another destination instead of returning).

The following two equations, (32) and (33), represent the variables that influence the average social capital endowment of the diaspora members. Both are depicted as a function of time (the level of integration increases as time goes by, whereas linkages with the home country decrease), hd_t (arguably, the greater the average human capital of the diaspora, the easier it is for its members to build up and maintain meaningful linkages with agents both in the sending country and in the destination country) and the characteristics of return migration in the past. $s1_t$ is described as also depending on the *initial* average endowment of "type 1" social capital, a vector $\hat{\sigma}1$ of variables susceptible to influence by policy (e.g., policy initiatives aimed at "courting" the diaspora – see next chapter) and on a vector $\overline{\sigma}1$ of parametric variables (e.g., individual propensity to maintain meaningful ties and linkages). Likewise, besides being a positive function of time and hd_t, $s2_t$ depends on a vector $\hat{\sigma}2$ of "instrumental" variables (sending country policy measures aimed at facilitating the integration of the migrants in the host society) and on a vector $\overline{\sigma}2$ consisting of the "parametric" determinants of the migrants" integration. Hence, we have:

$$s1_t = f\left(t, \hat{\sigma}1, \overline{\sigma}1, s1_0, hd_t, \frac{R_{ki}}{R_i}\left(k = 1,5; i = 1,t\right)\right) \tag{32}$$

$$s2_t = f\left(t, \hat{\sigma}2, \overline{\sigma}2, hd_t, \frac{R_{ki}}{R_i}\left(k = 1,5; i = 1,t\right)\right) \tag{33}$$

The initial average endowment of social capital upon emigrating is deemed exogenous in equation (34):

$$s1_0 = \overline{s1_0} \tag{34}$$

Turning now to the issue of the human capital endowment of the diaspora, we have seen that equation (15) naturally defined the average human capital endowment of the diaspora members as the total human capital stock of the diaspora (Hd_t) divided by the number of remaining migrants. However, we have not yet elaborated further on the determinants of Hd_t. The following composition equation does just that.

$$Hd_t = \left[(1-a_h)^t \times He_0\right] + \Phi_t - \Pi_t \tag{35}$$

Thus, the total human capital endowment of the diaspora is described as the algebraic sum of three aggregates: $(1-a_h)^t \times He_0$, or the total human capital endowment of the original emigrant population (which is equal to Hd_t when t=0), discounted according to an "obsolescence of human capital" factor risen to the number of elapsed periods[106]; Φ_t, or the total level of skills' acquisition or deskilling experienced by the diaspora up until the period t (which can be either positive or negative, depending on which of the skills' acquisition or deskilling effects prevail); and Π_t, or the total level of "repatriated" human capital (i.e., the skills and competences embodied in the migrants that have returned in the previous periods).

Elaborating further on each of these aggregates, we first have that:

$$He_0 = \eta_0 \times E_0 \tag{36}$$

which basically states that the total human capital endowment of the original emigrant population equals the product of its average human capital endowment (η_0 a variable that expresses the average human capital endowment of the original emigrants) by the volume of original emigration (E_0).

In turn, the human capital intensity of the original emigration flow, η_0, is described as a function of the average human capital endowment of the

106. Bearing in mind the observations made in footnote 107, it is worth pointing out that obsolescence is also assumed to occur in the beginning of the period, which is why the obsolescence factor (1-a) is risen to t and not to t-1.

home country labour force, as well as of $\hat{\eta}_0$ (a vector of instrumental variables impinging upon the selectivity of emigration, such as measures to "contain the brain drain") and $\overline{\eta}_0$ (variables influencing the selectivity of emigration that are not susceptible to influence by policy). Thus,

$$\eta_0 = f\left(\frac{H_0}{L_0}, \hat{\eta}_0, \overline{\eta}_0\right) \tag{37}$$

In a way that the reader may by now find customary in this model, equation (38) then defines Φ_t, or the total level of skills' acquisition or deskilling experienced by the diaspora up until the period t (which can be positive or negative) as the sum of the skills' acquisition or deskilling experienced in each previous period. In turn, the level of skills' acquisition or deskilling in each period corresponds to the *average* skills' acquisition or deskilling in that period, or Φ_t, multiplied by the remaining emigrant population in that period (the expression between brackets).

$$\Phi_t = \sum_{i=1}^{t}\left[\phi_i \times \left(E_0 - \sum_{i=1}^{t-1} R_i\right)\right] \tag{38}$$

The average skills' acquisition or deskilling in period t (ϕ_t) is described as a function of five different variables (equation 39): i) and ii) instrumental and parametric variables influencing the migrants' ability to acquire skills while abroad; iii) the total human capital stock of the host country; iv) the migrants' degree of integration in the host country; and v) the migrants' own average human capital endowment. The logic is that, much in the same way as they "tap into" the total income of the receiving country to the extent of their level of human and social capital in equation (14), so do migrants "tap into" the total human capital stock of the receiving country in the period t as a function of their own human and social capital endowment:

$$\phi_t = f\left(\hat{\phi}, \overline{\phi}, H_t^*, s2_t, hd_t\right) \tag{39}$$

The third and last aggregate impinging upon Hd_t in equation (35) is Π_t, or the "repatriated" human capital embodied in past returnees. This shall be modelled in equation (40) as follows:

$$\Pi_t = \sum_{k=1}^{5}\left[\sum_{i=1}^{t}\left[\left(1-a_h\right)^i \times \left(\eta_{ki} \times R_{Ki}\right)\right]\right] \tag{40}$$

Basically, what this equation says is that the total human capital embodied in the past returnees is equal to the sum of five different aggregates, corresponding to the total human capital embodied in the past flows of each of the five return groups: failure, conservatism, retirement, innovation and necessity (hence the first sum ranges between k=1 and k=5). The part of the equation inside the square brackets states that, for each of those groups of returnees, the total "repatriated" human capital is equal to the discounted sum of the human capital "repatriated" in the previous periods, which in turn is equal to the human capital intensity of that particular group in that particular period multiplied by the total level of return migration of that particular type in that particular period.

Equation (41) then presents the human capital intensity of each of the returnee groups in each period (η_{kt}) as different but parametric proportions of the average human capital endowment of the diaspora in that moment, or:

$$\eta_{kt} = \eta_k^{\bullet} \times hd_t \tag{41}$$

With regard to this latter equation, it is clear that different returnee groups have different average human capital endowments (for example, innovation returnees are obviously more skilled on average than failure returnees). However, since these types of returnees do not constitute groups as such prior to returning, their differential human capital endowment cannot be endogenously determined by the model except insofar as that they all depend directly on hd_t. Hence, $\eta_k^{\bullet}$ are deemed exogenous.

$$\eta_k^{\bullet} = \overline{\eta_k^{\bullet}} \tag{42}$$

It has taken us over forty equations to finally close the labour block of our model by describing the effect upon the sending country's labour stock in any given moment, L_0, ultimately as a function of a set of either instrumental or parametric variables. However, the capital, human capital and social capital blocks remain to be addressed. Fortunately, due to the numerous interdependencies between the various blocks, addressing the labour block has already forced to us digress into most of the aspects that have a relevant impact upon the remaining forms of capital. Let us begin with the composition equation (43) that describes the total capital stock of the sending country in the period t:

$$K_t = (1-a)^t \times K_0 + \sum_{i=1}^{t}\left[(1-a)^i \times \left(\iota \times m_i \times (G_i - Gl_i)\right)\right] + \\ + \sum_{i=1}^{t}\left[(1-a)^i \times \left(\iota \times m_i \times (Kr_i - Krl_i)\right)\right] + \\ + \sum_{i=1}^{t}\left[(1-a)^i \times (\iota' \times Y_i)\right] \tag{43}$$

This somewhat scary-looking equation certainly becomes more graspable if we begin by noticing that it basically states that the total capital stock of the sending country in the period t equals the sum of four components, the first of which is:

$$(1-a)^t \times K_0 \tag{43.1}$$

which is equal to the initial capital stock K_o multiplied by an obsolescence factor (1-a) risen to the number of elapsed periods (if, for example, we have an initial capital stock of 100, capital obsolesces at a rate of 10% per year and 2 years have gone by, this component will be equal to $(1 – 0,1)^2$ x 100 = 81).

The second component,

$$\sum_{i=1}^{t}\left[(1-a)^i \times \left(\iota \times m_i \times (G_i - Gl_i)\right)\right] \tag{43.2}$$

corresponds to the contribution of remittances to the capital stock. It is deemed that remittances in each period (G_t) have a concomitant counter-vailing effect (Gl_t) and that the overall balance of this sum has a multiplying effect which depends on the multiplier of remittances in each period (m_t). This will add to the capital stock to the extent that it is invested (or saved and channelled to investment) by the agents involved in the multiplier – ι_t is a measure of just that. Of course, past additions to the capital stock by virtue of remittances also obsolesce, which is why we must take the factor $(1\text{-}a)^t$

into account. Expression 43.2, or the second component of equation 43, therefore consists of nothing other than the sum of the past additions to the capital stock that are due to remittances – bearing in mind their concomitant countervailing effect, their multiplier effect, the fact that they add to the capital stock to the extent that they are eventually invested and the fact that this additional capital also obsolesces.

After this explanation of expression 43.2, it is much easier to understand expression 43.3, or the third component of the total capital stock of the sending country in the period t:

$$\sum_{i=1}^{t}\left[(1-a)^{i}\times\left(\iota\times m_{i}\times\left(Kr_{i}-Krl_{i}\right)\right)\right] \qquad (43.3)$$

Expression (43.3) consists of the contribution of the savings brought along by returning migrants in each period (Kr_t) to the total capital stock of the sending country. As with remittances, the sum of the flows of these savings adds to the capital stock to the extent that the overall balance (taking into account the countervailing effect) in each period times the multiplier m_t is eventually invested in the proportion ι_t. And again, these additions to the capital stock also obsolesce by a factor of $(1\text{-}a)^t$. As another simplifying assumption, we are assuming that both the multiplier and the invested share of the "repatriated" savings are the same that apply in the case of remittances.

$$\sum_{i=1}^{t}\left[(1-a)^{i}\times\left(\iota'\times Y_{i}\right)\right] \qquad (43.4)$$

Finally, the fourth component of the capital equation is past domestic investment (equation 43.4) which we can describe as the discounted sum of domestic investment in each of the previous periods. In turn, domestic investment in each period consists of the share ι' of the total domestic income or output in the period Y_t that goes into investment. Note that ι' differs from ι: the average propensity to invest in the sending country as a whole need not be equal to that among the agents involved in the various rounds of remittance spending.

Now, the composition equation of the capital stock (43) forced us to introduce a few new variables, which call for further elaboration. Thus, we have:

$$a=\overline{a} \qquad (44)$$

Equations (42) states that the rate of obsolescence is exogenous

$$\iota = f(\hat{\iota}, \bar{\iota}) \qquad (45)$$

Equation (45) describes the proportion in which the resulting multiplier effect of remittances (and of the capital brought along by returning migrants) is eventually invested as a function of a vector of instrumental variables $\hat{\iota}$ (for example, the extension of banking services to remittance-recipient households) and a vector of parametric variables $\bar{\iota}$ (exogenous variables impinging upon the propensity to save or invest of the agents involved in the various rounds of the multiplier).

$$\iota' = f(\hat{\iota}', \bar{\iota}') \qquad (46)$$

Likewise, equation (46) describes the proportion ι' in which income in each period goes into domestic investment as a function of a vector of instrumental variables $\hat{\iota}'$ and a vector of parametric variables $\bar{\iota}'$. It differs from equation (45) insofar as the investment out of remittances and savings brought along by return migrants may behave differently and have different determinants than investment out of domestic income (i.e., investment unrelated to emigration). Even though these two types of investment probably have a number of explanatory variables in common, some are different, which is why the instrumental and parametric variables in the two cases are represented as distinct vectors.

$$m_t = \overline{m_t} \qquad (47)$$

Equation (47) then describes the multiplier m_t in each period as exogenous (in this model and for the sake of simplicity).

$$Kr_t = \kappa r_t \times R_t \qquad (48)$$

In similar fashion to equation (36), equation (48) describes the total flow of savings brought along by returning migrants in each period as the product of the average savings brought along by each returning migrant in the period by the total volume of return migration in that period. Of course, this requires that we specify the determinants of κr_t:

$$\kappa r_t = f\left[g_j(j=1,t-1), Y_j^*(j=1,t-1), s2_j(j=1,t-1), hd_j(j=1,t-1), \vartheta, \frac{R_{kt}}{R_t}(k=1,5)\right] \qquad (49)$$

Behaviour equation (49) does just that, albeit leaving the functional form unspecified. The average savings brought along by return migrants in the period t is described as an unspecified function of six sets of variables: i) it is a negative function of the average remittances in each of the previous periods (the greater the past remittances, other things being equal, the lesser the savings accumulated by the migrants *in the host country*); ii) it is a positive function of the total income generated in the receiving country in the previous periods (Y^*_t); iii) and iv) a positive function of the migrants' capacity to "tap into" that income in each of those periods (which depends on the past values of $s2_t$ and hd_t); v) a positive function of the migrants' propensity to save rather than consume out of their past income share (ϑ; and vi) a function of the relative weights of the various types of return flows in the period t (returnees of innovation should be expected to have greater average capital endowment, for example).

The reasoning behind equation (49) is basically that return migrants can only bring along that part of their accumulated savings which they have not remitted in the past, that their accumulated savings depend on their income in the previous periods and that their income in the previous periods in turn depends on the total income generated in the receiving country in the previous periods, as well as on their capacity to capture a share of that income in the past.

In order to indicate the determinants of the remaining variables that we have so far introduced, equations (50) and (51) describe the countervailing effects to the inflows of remittances and "returning" accumulated savings as a function of the volume of those inflows, as follows:

$$Gl_t = f(G_t) \qquad 50)$$

$$Krl_t = f(Kr_t) \qquad (51)$$

This has closed the "capital" block of our model, fortunately in much quicker fashion than was the case with the labour one. Equations (52) through to (58) now describe the effects of emigration upon the human capital stock of the sending country:

$$H_t = (1-a_h)^t \times (H_0 - He_0) + \sum_{i=1}^{t} \left[(1-a_h)^i \times (\theta_i \times Hd_i) \right] +$$

$$+ \sum_{i=1}^{t} \left[(1-a_h)^i \times (\varpi \times m_i \times (G_i - Gl_i + Kr_i - Krl_i) \right] +$$

$$+\sum_{i=1}^{t}\left[(1-a_h)^j \times (Hr_i)\right]+\sum_{i=1}^{t}\left[(1-a_h)^j \times (\varpi' \times Y_i)\right]+\eta gd_t \times Ld_t \quad (52)$$

The composition equation (52), which is in many ways analogous to equation (43), basically states that the total human capital stock of the sending country in the period t is equal to the sum of six different components:

$$(1-a_h)^t \times (H_0 - He_0) \quad (52.1)$$

Expression (52.1) consists of the balance that results from the algebraic sum of the original human capital stock minus the total human capital stock of the original emigrant population, all of which discounted according to the rate of obsolescence of human capital risen to the number of elapsed periods[107].

$$\sum_{i=1}^{t}\left[(1-a_h)^j \times (\theta_i \times Hd_i)\right] \quad (52.2)$$

Expression (52.2) consists of the discounted sum of the human capital "remitted" through dissemination in the previous periods. As explicit in the expression, the human capital "remitted" in each period (θ_t x Hd_t) is regarded as a proportion θ_t of the total human capital held by the diaspora in that period Hd_t.

$$\sum_{i=1}^{t}\left[(1-a_h)^j \times (\varpi \times m_i \times (G_i - Gl_i + Kr_i - Krl_i)\right] \quad (52.3)$$

Expression (52.3) consists of the discounted sum of the share ϖ of the net migrant-related income inflows in the period t that is eventually invested in human capital formation (e.g., health and education). Net migration-related income inflows in the period t consist of the algebraic sum of remittances in the period plus the savings brought along by returning migrants in the period minus their respective countervailing effects. As in the capital equa-

107. The more attentive reader may have noticed that no "countervailing effects" are being taken into account as regards human capital, unlike what was the case with labour and capital. This is because in the case of increasing returns to human capital, the effect of the added productivity in the event of an increase in the stock of this factor may itself offset the effect of its reduced scarcity in bringing about changes in supply. An implicit (and inaccurate) assumption is thus being made that the two effects cancel each other out, so as not to further complicate the model.

tion (43), the relevant product is not ϖ multiplied by net migration-related income inflows *per se*, but ϖ_t multiplied by net migration-related income inflows times the multiplier.

$$\sum_{i=1}^{t}\left[(1-a_h)^i \times (Hr_t)\right] \tag{52.4}$$

In turn, expression (52.4) consists of the discounted sum of the human capital embodied in the returnees of the previous periods.

$$\sum_{i=1}^{t}\left[(1-a_h)^i \times (\varpi' \times Y_i)\right] \tag{52.5}$$

Expression (52.5) consists of the discounted sum of investment in human capital out of domestic income Y_t in each of the previous periods.

$$\eta gd_t \times Ld_t \tag{52.6}$$

Finally, expression (52.6) indicates the human capital that is embodied in the labour "removed" from the labour force in the period through the effect of remittances, which is equal to the amount of "displaced" labour (Ld_t) multiplied by its average human capital endowment (ηgd_t).

Now, composition equation (52) has forced us to introduce yet a few more variables, namely the rate of obsolescence of human capital (a_h), the share of investment in human capital out of migration-related income inflows (ϖ), the proportion of the diaspora's human capital endowment that is disseminated and effectively adds to the sending country's human capital stock in each period (θ_t), the share of investment in human capital out of domestic income (ϖ') and the human capital embodied in returning migrants (Hr_t). As we move closer to the end of the model, let us address each of these new variables.

$$a_h = \overline{a_h} \tag{53}$$

First of all, the rate of obsolescence of human capital is deemed exogenous.

$$\varpi = f(\hat{\varpi}, \overline{\varpi}) \tag{54}$$

Second, the share of investment in human capital out of migration-related income flows is deemed a function of a vector $\hat{\varpi}$ of instrumental variables (e.g., matching funds schemes or fiscal benefits for HTAs' spending in health or education) and a vector $\bar{\varpi}$ of parametric variables (including the prospects of future migration, bearing in mind the argument of the "revisionist" approach to the brain drain).

$$\theta_t = f\left(\hat{\theta}, \bar{\theta}, H_t, s1_t\right) \tag{55}$$

Third, the variable measuring the intensity of the dissemination effect of the human capital endowment of the diaspora upon the domestic human capital stock (θ_t) is described as a function of: i) a vector of instrumental variables (including active measures to foster active scientific diaspora networks and temporary consultancy and training visits by diaspora members); ii) a vector of parametric variables (including the long-run institutional characteristics of the scientific and technological system of the sending country); iii) the existing domestic human capital stock (it is deemed that the greater the existing human capital stock, the easier it is to absorb new knowledge and technology); and iv) the intensity of the social ties and linkages between the diaspora members and the agents in the home country (which is deemed to impinge upon all types of "remittances", be them of money or ideas).

$$\varpi' = f(\hat{\varpi}', \bar{\varpi}') \tag{56}$$

The share of investment in human capital out of domestic income (ϖ') is described as a function of a vector $\hat{\varpi}'$ of instrumental variables and a vector $\bar{\varpi}'$ of parametric variables. Many of these will be the similar to those impinging upon the share of investment in human capital out of migration-related income flows (including the domestic returns to human capital and the "revisionist-brain-drain" aspects), but some will be different (for example, fiscal benefits for HTAs spending in health and education may affect ϖ but not ϖ'), which is why the vectors $\hat{\varpi}$ and $\bar{\varpi}$ are presented as different from $\hat{\varpi}'$ and $\bar{\varpi}'$.

$$Hr_t = f\left(hd_t, R_t, \frac{R_{kt}}{R_t}(k = 1{,}5)\right) \tag{57}$$

In turn, the human capital endowment of the returning migrants in each period t is described as a function of the average human capital endowment of the diaspora in that period, the total volume of return migration and the relative shares of each of the various types of return motivations. Typically, a higher share of innovation returnees will correspond to a higher overall level of human capital "repatriation".

Referring back to the independent variables in equation (49), it is worth noting that unlike what was the case with respect to remittances and savings brought along by returning diaspora members, the human capital "disseminated" by the diaspora while abroad does not subtract from their own human capital endowment. That is because knowledge and ideas can be shared as a positive-sum game, instead of as a zero-sum game as in the case of money, capital or goods.

$$\eta gd_t = \overline{\eta gd_t} \qquad (58)$$

Finally, equation (58) indicates that the average human capital endowment of the labour "removed" from the labour force through the effect of remittances is exogenous.

The last equation in our model is the composition equation of the sending country's social capital stock:

$$S_t = f\left(S1_t, S2_t\right) \qquad (59)$$

Bear in mind that we are only addressing the issue of «bridging» social capital from a egocentric perspective *with respect to emigration*. That is why the initial social capital stock of the sending country (i.e., prior to emigration) equalled zero, or S_0=0. From the point of view of the sending country, this social capital stock is a positive function of both its ties and linkages with the diaspora and the diaspora's own level of integration, as explicit in equation (59). However, it is not a simple additive function – most likely, it has multiplicative properties (accounting for $S_0 = 0$ with $S1_0 = \overline{S1_0} > 0$). However, since further specifying the functional form of the social capital equation would require a more precise operational definition of the concept and measurement of social capital, I shall leave the functional form unspecified while highlighting the fact that $\frac{\partial S_t}{\partial S1_t} > 0$ and $\frac{\partial S_t}{\partial S2_t} > 0$.

7.2. The migration-development model: ideal uses

The reader who has had the endurance to navigate with me through the fifty-odd equations of this migration-development model structure (again, it is not an actual model since many functional relationships have not been specified) will have noticed that despite the apparent complexity of some of its equations, what it contains is nothing else than a formal representation, involving quite a few simplifying assumptions, of the linkages between migration and development presented and discussed in Chapters 3, 4 and 5. Basically, it formalises the logical link between two different groups of variables – instrumental and parametric [108] –, through an intricate web of intermediate relationships and variables, on to the variables that are formalised as the specified arguments of the production function: L_t, K_t, H_t and S_t. Through the production function, the model then theoretically completes the bridge between the instruments and parameters and the future level of output Y_t. Ultimately, it also links those variables with growth, since the growth rate is nothing else than

$$\frac{Y_t}{Y_{t-1}} - 1$$

Of course, all of this would work effectively in an ideal world with an ideal model, in which no relevant variables were omitted, all the functional forms were correctly specified and all the variables (including the more abstract ones such as S1, S2 or H) could be measured with enough rigour and accuracy. Probably the most critical role of all is played by the production function, which provides the ultimate linkage between emigration and the level of output in the sending country. The problem is that if it were that simple to identify the relationship between the relevant variables and growth, the quest of generation upon generation of growth and development economists would not have proven as «elusive» as it has consistently has (Easterly, 2002). It might just be that some very relevant inputs for any society's economic output are being omitted; worse still for our purposes, it might just be that those omitted relevant arguments of the production function are indeed significantly affected by emigration, in which case it would mean that even if we *could* correctly measure all the variables and correctly estimate the functional forms of all the unspecified functions in the model, we would still be unable to assess the migration-growth nexus, let alone the migration-development nexus, in a rigorous manner.

108. Again, note that the set of instrumental variables is also exogenous to the model in the sense that they are generated outside the model. The distinction between "instrumental" and "parametric" variables is based on whether or not a given exogenous variable can be the object of instrumental policy changes, particularly in the short run.

However, suppose for a moment that we are indeed living in an ideal world in which we are fortunate enough to be in possession of such an ideal model. What might the uses of such a model be? Well, to begin with, it would be possible to "solve" the model by iterative substitution and represent Y_t as a (fairly complicated) function of all the other variables in the model. This would provide us with a way of objectively assessing the beneficial or detrimental character of emigration for the sending country. Assuming that all the relationships were known and correctly specified and bearing in mind that Y_t represents the sending country's total income or output in each period (a variable expressed in monetary units), it would then be possible to do a "financial" assessment of the impact of a given level of emigration E_0 as the present value (PV) of the Y_t flows in the subsequent periods in the event of emigration minus the present value of Y_t in the event of zero emigration. The reason why we use the present value instead of simply adding up the future income flows consists of the fact that a higher value is attached by society to the level of income in the present than to that in the future: anticipation has an economic value because anticipated income flows can themselves be invested. Thus, holding all the other variables constant, the formal representation of a "financial" assessment of the impact of a positive level of emigration $E_0>0$ would be written as follows:

$$PV(E_0 > 0) = PV\left[Y_t(E_0 > 0)\right] - PV\left[Y_t(E_0 = 0)\right] \text{, or}$$

$$PV(E_0 > 0) = \left[\sum_{j=1}^{t} \frac{Y_j(E_0 > 0)}{(1+i/100)^j}\right] - \left[\sum_{j=1}^{t} \frac{Y_j(E_0 = 0)}{(1+i/100)^j}\right]$$

with i equal to society's rate of preference for the present over the future, theoretically expressed by the interest rate (in this case expressed in percentage points). If this expression turned out to be positive, it would mean that a positive emigration flow would result in a positive impact upon the present value of future income as compared to the "zero emigration" scenario.

However, bear in mind that the *per capita* income in each period in the event of positive emigration (which would be a more accurate means of assessment) is obtained dividing the total income by the country's population in the period, which would of course also be affected by emigration (through the original outflow minus the subsequent return flows). Thus, a more accurate assessment of the impact of emigration would be:

$$PV'(E_0 > 0) = PV\left[\frac{Y_t(E_0 > 0)}{Pop_t(E_0 > 0)}\right] - PV\left[\frac{Y_t(E_0 = 0)}{Pop_t(E_0 = 0)}\right]$$

with Pop_t standing for the total population of the sending country in each period. Of course, implicit in an assessment based on this latter equation is the idea that a government should only be concerned with the welfare of its citizens that choose to remain in the home country, since the welfare of the migrants themselves would not be taken into account. If however, we endorse the view that «ultimately (…) policy commitment is always to people, not places *per se*» (Ellerman, 2003:12), the following expression would allow for an even more adequate assessment:

$$PV''(E_0 > 0) = PV\left[Y_t(E_0 > 0)\right] + PV\left[Migrants' income\right] - PV\left[Y_t(E_0 = 0)\right]$$

in which the income of the migrants themselves in all the future periods would also contribute to offsetting the negative externalities to those remaining in the home country that might result from their emigration.

Then of course, policymakers could only be absolutely positive that a given level of emigration was a positive or negative thing if the present value of *welfare* was used instead of the present value of income, as follows:

$$PV'''(E_0 > 0) = W\left[PV\left[Y_t(E_0 > 0)\right] + PV\left[Migrants' income\right]\right] - W\left[PV\left[Y_t(E_0 = 0)\right]\right]$$

in which W represents the social welfare function, a theoretical construct used to discuss the desirability of social choices that obviously depends on variables other than the absolute level of income (e.g., the income distribution or the social consequences of emigration)[109].

In this ideal world of ours, even more interesting than assessing the beneficial or harmful character of a given level of emigration E_0 would be to enquire how much the present value of future income [$PV(E_0)$], the present value of future *per capita* income [$PV'(E_0)$], the present value of the future income of the home country population *and* of the migrants themselves [$PV''(E_0)$] and the present value of future social welfare [$PV'''(E_0)$] would change in reaction to a change in the volume of emigration E_0. Formally, this would be written as follows:

$$\frac{\partial PV(E_0)}{\partial E_0} \qquad (1)$$

109. Moreover, note that the specification of the social welfare function is a *political* issue, not a technical one, regardless of the fact that governments in the real world specify it implicitly rather than explicitly (through the level of policy commitment to reducing poverty or inequality, for example).

$$\frac{\partial PV'(E_0)}{\partial E_0} \qquad (2)$$

$$\frac{\partial PV''(E_0)}{\partial E_0} \qquad (3)$$

$$\frac{\partial PV'''(E_0)}{\partial E_0} \qquad (4)$$

For any of the four suggested measures of the net impact of emigration [PV(E_0), PV'(E_0), PV''(E_0) or PV'''(E_0)], the fact that its derivative with respect to E_0 was positive would mean that an increase the volume of emigration would bring about an increase in the present value of the future income, *per capita* income or welfare. In such an event, fostering emigration by implementing changes in the instrumental variables $\hat{\varepsilon}$ would certainly be warranted. If, however, the derivative was negative, seeking to bring about an increase in the level of emigration would be counterproductive, since it would result in a *decrease* in the present value of future income or welfare. In that case, the optimising policymaker would instead implement changes in $\hat{\varepsilon}$ in the opposite direction, i.e., so as to contain emigration.

Even more interesting is the fact that, in many cases, increases in the level of emigration will probably be *neither* always positive *nor* always negative – their beneficial or detrimental nature will most likely depend on the *level* of emigration. In formal terms, this would be apparent in the fact that the result of the derivative of income or welfare with respect to E_0 would not be a positive or negative absolute number once we substituted all the parameters with their actual values, but instead a function with E_0 as the argument. This would happen whenever the actual production function adopted in the model allowed for diminishing returns, which of course occur in the real world. In the presence of diminishing returns, and because an increase in E_0 does not bring about proportional increases in all the arguments of the production function (in particular, TFP has been modelled as exogenous and parametric), fostering additional emigration would at some point have the same effect as adding an additional bucket of water to a flower vase after having already added several buckets.

If that was the case, then our optimising policymaker would in fact be able to compute the *optimal* level of emigration E_0^* and proceed to implement the policy measures $\hat{\varepsilon}^*$ in order to nudge the level of emigration to that optimum. Of course, depending on the actual functional form of the equations and on the actual values of the instrumental variables and parameters (which, but for $\hat{\varepsilon}$, we are holding constant in this particular conceptual exercise), the optimal level of emigration E_0^* could well be a negative one – in which case the optimising policymaker would not be able to do more than try and bring it down to zero (since immigration is regarded as an altogether different phenomenon and has no place in the model).

In this incursion into the world of ideal models, social welfare functions, perfectly measurable variables and optimising policymakers, other *gedanken experiments* can be performed. So far, we have focused on the impact of changes in E_0 holding all the other variables constant. However, we have defined many of those remaining variables as instrumental, which means that they can be used by policymakers to bring about changes in the future levels of output – and ultimately welfare. Therefore, we can just as well focus on one of those variables – $\hat{\sigma}1'$, for example, which represents one of the variables that make up the vector of variables $\hat{\sigma}1$ that we have defined as instrumental in influencing the level of "type 1" social capital binding the diaspora and the home country, or their level of "allegiance" towards the home country ($\hat{\sigma}1'$ might consist, for example, of the amount of government spending in supporting hometown associations). Solving the model for Y_t by substitution, we would have Y_t as a function of all the other variables. Then, if we assumed the value of all the instrumental and parametric variables other than $\hat{\sigma}1'$ to be fixed, the function would simplify immensely and become $Y_t = f(\hat{\sigma}1')$.

Now, the partial derivative of the present value of the resulting function $Y_t = f(\hat{\sigma}1')$ with respect to $\hat{\sigma}1'$, or

$$\frac{\partial PV\left[Y_t(\hat{\sigma}1')\right]}{\partial \hat{\sigma}1'}$$

would yield how much of a marginal change in the present value of the future income flows was to be expected as a result of a marginal change in $\hat{\sigma}1'$. If it was a positive number or expression, i.e., if

$$\frac{\partial PV\left[Y_t(\hat{\sigma}1')\right]}{\partial \hat{\sigma}1'} > 0$$

increasing the amount of government subsidising to hometown associations would bring about an increase in level of the discounted future income (or *per capita* income, or welfare, depending on which of the aforementioned expressions is used). Conversely, if

$$\frac{\partial PV\left[Y_t(\hat{\sigma}1')\right]}{\partial \hat{\sigma}1'} < 0$$

decreasing the amount of HTA subsidising would be warranted.

However, our perfectly informed and optimising ideal policymaker would probably not be satisfied with this criterion for deciding whether or not to implement a given policy change. This is because implementing policies (and creating incentives in particular) has a cost, which usually depends on the magnitude of the policy change being implemented. Our optimising policymaker would of course wish to take into account the cost variation associated with the policy change. Thus, the "ideal" criterion for deciding whether or not to implement a given policy change would be to compute

$$\frac{\partial PV\left[Y_t(\hat{\sigma}1')\right]}{\partial \hat{\sigma}1'} - \frac{\partial C(\hat{\sigma}1')}{\partial \hat{\sigma}1'}$$

where of course $C(\hat{\sigma}1')$ – the cost of implementing the policy – should be understood in an *economic* rather than *accounting* sense – i.e., as its opportunity cost (or the value of the best alternative use). If the result of this latter expression was positive, then implementing a policy change consisting of increasing $\hat{\sigma}1'$ would most definitely be warranted; if it was negative, decreasing $\hat{\sigma}1'$ would be the wise thing to do.

Possibly, the resulting expression might itself be a function with $\hat{\sigma}1'$ as the argument (for example, if either the "policy impact" or the "policy cost" were non-linear functions of $\hat{\sigma}1'$). In that case, it might just be that that function had a maximum, which indeed is more often than not the case in real life. There might be very high returns to the first 100 monetary units of subsidising to each HTA, that largely exceed the opportunity cost of their usage in this way and therefore justify the implementation of such a policy, but increasing subsidising by a further 100 monetary units when each HTA is already receiving a sizeable subsidy would probably do little to increase the linkages between the diaspora and the sending country ($S1_t$) and, through the web of relationships formalised in the model, to increase $PV(Y_t)$. Whenever the marginal increase in the opportunity cost begins to exceed the marginal increase in the benefit created through the policy, further changes in the policy instrument are unwarranted, which is why our optimising policymaker would wish to make sure that $\hat{\sigma}1'$ was at its optimal level $\hat{\sigma}1'^{*}$, at which the following optimality condition would apply[110]:

$$\frac{\partial PV\left[Y_t(\hat{\sigma}1')\right]}{\partial\hat{\sigma}1'} - \frac{\partial C(\hat{\sigma}1')}{\partial\hat{\sigma}1'} = 0$$

In conclusion, policymaking in this ideal world would amount to social and economic "engineering". Perfect knowledge of the social and economic system and its functioning would provide policymakers with the tools required for a perfectly rational and optimising approach to policy. As regards the migration-development nexus, the joint optimisation of all the instrumental variables would ensure that the sending country gained as much as it possibly could (or lost as little as it possibly could) through the emigration of its nationals. However, the self-evident truth is that a number of highly significant reality checks prevent us from transposing these conceptual exercises to the real world. Those limitations are the subject of the next section.

7.3. The migration-development model: actual limitations

We are obviously a long way from the ideal model described in the previous section. The idea of a perfectly informed and deterministic approach to policy in the field of the interplay between international migration and sending country development is therefore only an ideal limit to be sought. In this field as in most others, policymaking will remain more of an art form than an exact science. Indeed, there is a fair amount of hubris in the very idea of being able to "fine-tune" complex social and economic processes based on their perfect mapping.

Still, listing the limitations of this model structure proposal – and mapping the gap between the real and ideal worlds of analysis and policy more generally – does provide us with both a measure of our ignorance in this field and a roadmap for future research. The limitations of the suggested migration-development model are of two basic sorts: problems with the chosen variables and problems with the functional forms. The former should be addressed first, because once we are in possession of a set of perfectly defined and measurable variables, it is then theoretically possible

110. This is a necessary optimality condition, not a sufficient one. It merely ensures that the function is at a local maximum or minimum, not at an absolute maximum. If, however, the function is a well-behaved quadratic function with one maximum, for example, the condition becomes both necessary and sufficient.

to use actual cross-country and/or time-series data to experiment with a variety of functional forms in each of the model's equations in search of the best possible fit.

Thus, the main problem with the variables consists of the unavailability of satisfactory ways of measuring (or satisfactory proxies for) the actual values of many of the variables used in the model. This is mostly a consequence of problems with the definition of the variables, as well as with the actual difficulty of measuring them as defined. For example, the number of university graduates makes for a very poor proxy for the human capital stock if we bear in mind that we have defined human capital as the set of formally or informally acquired skills and competences that, *ceteris paribus*, determines the productivity of labour. Therefore, the first step in the endeavour to bring us closer to the ideal scenario depicted in the previous section would consist of devising more accurate and consistent ways of measuring the abstract notions associated with each of the theoretical variables in the model.

Another problem with the variables used in this model regards their characterisation as either «parametric» or «instrumental». Rigorously speaking, both of these types of variables are exogenous to the model in the sense that they are generated outside the model. A choice was made to characterise them as "instrumental" whenever they are regarded as susceptible to instrumental change by policymakers. The problem is that, except for a few variables upon which policymakers have virtually no way of acting (such as the sending country's climate, deemed one of the components of the vector of parametric variables $\overline{\rho}$ that influence the likelihood of return migration), nearly all the determinants deemed "parametric" in the model can, to a lesser or greater extent and in the shorter or longer run, be subject to influence by policy. Take, for example, the real interest rate, most likely an important component of the factors influencing the diaspora members' average propensity to invest in their home country (included in g, in the model): should it be deemed instrumental ($\hat{\gamma}$), insofar as governments can lower or increase the interest rate to a certain degree by increasing or reducing the supply of money through its monetary policy instruments (such as open market operations and reserve requirements, for example)? Or should it be deemed parametric, insofar as neither the money supply nor (especially) the demand for money can be fully controlled by economic policymakers? In fact, should it even be deemed exogenous, considering for example that remittances and migrant investment will add to the money supply and possibly cause the interest rate to drop (*ceteris paribus*)? The reason behind the decision not to treat variables such as the interest rate as endogenous lies in the fact that it is most likely that their overwhelming determinants will have little to do with emigration – hence treating them as partly endogenous would probably add little explanatory power to the model while complicating it even further (bear in mind that, as it is, the suggested model structure includes over 70 variables and nearly 60 equations). However, the question remains as to what should be considered "instrumental" and what should be considered "parametric". Basically, my understanding is that this issue will have to be addressed on a case by case basis, depending on the governments' capacity to influence or determine a given variable in the short and in the long run, as well as on whether or not that variable is also a relevant instrument for other desired policy objectives (in which case the government's degree of freedom in using the instrument in the migration-development sphere is reduced, due to the need to take the effects in other policy areas into account).

Finally, one further weakness of the model as it is consists of the fact that most of the exogenous (instrumental or parametric) variables that ultimately determine the outcome in terms of the endogenous variables are deemed constant. Take, for example, the diaspora members' propensity to save $\vartheta = f(\hat{\vartheta}, \bar{\vartheta})$, deemed a function of a vector $\hat{\vartheta}$ of instrumental variables and another vector $\bar{\vartheta}$ of parametric variables. In its current form, this equation and its variables are also stating that an implicit assumption is being made that the propensity to save is constant across time and that its instrumental and parametric determinants are also constant across time. That is to say, it is as if policymakers were only allowed to make their policy decisions in the period t = 0 and had to follow through with them until the end of time, and as if the "environmental" determinants of the agents' behaviour were also unchanging. These assumptions are of course both highly restrictive and highly unrealistic. Thus, rewriting the model in order to address these insufficiencies would involve allowing for the different agents' behaviour to experience changes over time, as well as transforming the vectors of instrumental and parametric determinants into matrixes (with time as the added dimension): in the latter example, we would have $\vartheta_t = f(\hat{\vartheta}_t, \bar{\vartheta}_t)$. Of course, the ensuing optimisation exercise would then involve maximising n x t instead of n variables (with n = number of instrumental variables that make up *all* the vectors of instrumental variables and t = number of time periods). Although I have chosen not to do this in order for the suggested model structure to remain relatively simple and useful for illustration purposes, there is little doubt that relaxing the "constancy of instruments and parameters" restriction would be a prerequisite for any actual model to be able to eventually perform assessments or forecasts.

There is also a variety of problematic issues with respect to the functional forms. The reader will have noticed that the behaviour equations of the unspecified form x = f(a,b) in the model are of course hypothetical (regardless of how plausible the hypotheses may be)[111]. Thus, once in possession of appropriate measurements, proxies or factors representing the hypothetically relevant independent variables in each equation, the next step in the roadmap to a rational approach to policymaking in the migration-development field would involve extensive testing of a variety of functional forms for each of the model's equations. If the hypothesised determinants turned out to have unsatisfactory explanatory power regardless of the functional form, it would seem advisable to go back to exploring the available "intensive/ethnographic" research in search of more accurate or complete hypotheses.

Some likely insufficiencies of this sort are already visible in the suggested model (although I have deliberately left it as it is so that it would not become overwhelmingly complicated). For example, *average* propensities and probabilities are extensively used throughout the model (e.g., the average propensities to save or invest out of migration-related income), but it is likely that in many cases other descriptors of the distribution of the corresponding variable are of greater relevance than the average: the top 25th percentile in the distribution of the diaspora members endowment of "type 1" social capital (ties and linkages with the home country), for example, may well be a more powerful predictor of the total amount of remittances in a given period than the average $S1_t$. Other problems of this sort may result in the need to use lagged variables: certain additions to the human capital stock, for example, probably will not have an impact upon the country's level of output until after a given number of periods, in which case the production function should be specified accordingly.

Speaking of the production function, it is worth stressing that that is probably where the suggested model's greatest vulnerability lies. Even though the suggested production function is general enough to allow for increasing or decreasing returns to each production factor and a variety of functional combinations of those factors, an implicit assumption *is* being made that labour, capital, human capital and social capital (in the sense presented before) are the main determinants of a country's productive capacity, or at least the main channels through which emigration has an impact upon that productive capacity. However, the issue of the ultimate determinants of growth and development is of course still a largely unresolved issue. Moreover, it may well be that the determinants of growth for countries in different positions along the development scale be themselves different. For example, Richard Florida (2002) has emphasised the role of «creative

111. The composition equations of the form $X = X_1 + ... + X_n$ are simple logical decompositions and, while possibly wrong, are in principle not hypothetical.

capital» (in my understanding, a specific form of human capital) as a powerful predictor of the United States' most dynamic regions. It is possible that that «creative capital» need to be considered a crucial determinant of growth for countries close to the technological frontier, but not for developing countries that should be more concerned with the adoption of already existent technologies than with coming up with new ones. Other hypotheses along similar lines may well be well-founded, and emigration may well have a significant impact upon the hypothesised determinants, which is why an accurate assessment of the migration-development nexus is ultimately dependent upon an accurate assessment of the determinants of growth and development.

Moreover, still more obstacles lie in the path to a perfectly rational and optimising approach when it comes to the adoption of instrumental policy measures in the field of emigration. Even if all the relevant variables were accurately measured and the functional form of all the equations (including the production function) perfectly specified, we have seen that the ultimate justification of a given policy measure has to consist of the fact that its benefits in terms of present and future welfare exceed its (opportunity) cost. This would require not only that we also had perfect knowledge of the impacts of emigration upon the other determinants of a society's welfare (poverty and inequality in particular), but also that we were in possession of an "ideal" social welfare function that perfectly reflected the society's preference for a given outcome over another (a major problem in itself, as expressed by Arrow's impossibility theorem[112]).

Still, the ideal character of this goal should not dissuade us from making headway in the direction of a better informed and more rational policy approach – one which will require better specified models with more accurately measured variables, as well as greater awareness of the intricacies, trade-offs and dynamics that are the subject of the next section.

112. Arrow's impossibility theorem states that no social welfare function can be devised that simultaneously satisfies the following requirements (supposed to be properties of an ideal social welfare function): i) *unrestricted domain,* or the ability to create a deterministic, complete societal preference order from every possible set of individual preference orders; ii) *non-dictatorship,* or sensitivity to the wishes of more than a single voter or citizen; iii) *independence of irrelevant alternatives,* or the compatibility of the function's outcome for a restricted subset of alternatives with the outcome for the unrestricted set of alternatives; and iv) *unanimity,* or the fact that if every individual prefers a certain option over another, then so must the resulting societal preference order (adapted from www.wikipedia.org).

7.4. Intricacies, trade-offs and dynamics

As is apparent in mathematical form, the attempt at formalising the impacts of international migration upon sending country development as discussed in the previous chapters yields a highly intricate web of relationships between a large number of variables. Moreover, as we have seen, that has been the case even allowing for a fair number of restrictive and simplifying assumptions – which shows just how complex this issue really is.

While it is therefore unrealistic to seek to "optimise" the level of all the instrumental variables, it is nevertheless crucial that policymakers be aware of the intricacies and trade-offs involved in using the instruments at their disposal. The model provides a good way of illustrating this. Take, for example, policy measures aimed at encouraging the maintenance of meaningful linkages between the diaspora and the home country ($\hat{\sigma}1$). In accordance with the model, this would cause the average endowment of "type 1" social capital ($s1_t$) to increase, which would in turn bring about increases in the average level of remittances (g_t), in the probability and volume of conservatism (r_{2t},R_{2t}), retirement (r_{3t},R_{3t}) and innovation (r_{4t},R_{4t}) return migration, in the rate of dissemination of the diaspora's human capital in the home country (θ_t) and in the sending country's total stock of «bridging» social capital (S_t). Increasing remittances would then have a displacement effect upon the labour stock (Ld_t) (which also affects the stock of human capital through (ηgd_t)), decrease the amount of "returnee savings" that can be expected to enter the country in the subsequent periods (Kr_t) and increase the capital stock (K_t) directly. In turn, increasing the level of return migration would have an impact upon a variety of variables, e.g. through direct and immediate additions to the labour (L_t), human capital (H_t) and capital (K_t) stocks, but also by changing a variety of average endowments and propensities that depend on the past values of (R_{kt}/R_t). Increasing the rate of dissemination of the diaspora's human capital might also bring about future increases in (H_t) that might even offset the fact that fewer initial migrants would be there to "capture" and remit knowledge and ideas. Now, we could carry on and on, because each variable affects many others and because the model allows for a variety of feedback effects (which, bear in mind, result directly from seemingly plausible conjectures on their behaviour), but the main point is that a change in the current value of a single instrumental (or parametric, for that matter) variable spreads throughout the model and projects itself into the future, bringing about impacts of a varied nature, intensity and desirability. Were we fortunate enough to have perfect knowledge of the direction and magnitude of each and every relevant effect, sorting out the trade-offs would be easy. However, since the sad reality is one of imperfect information and bounded rationality, it is important that policymakers do not presume that the desired outcomes of their policies will happen automatically and without a cost. In the absence of deterministic and perfectly informed policy instruments, sense and sensibility are of the essence.

One last issue that is of special interest is the question of whether (and under which conditions) emigration can give rise to self-sustaining dynamics of convergence or divergence (Ellerman, 2003). The suggested model does not provide any especially appropriate grounds for drawing conclusions with regard to this, particularly because the determinants of emigration have been very loosely specified (in particular, Y_t has not been explicitly presented as a determinant of emigration, which would have allowed the ultimate feed-back effect giving rise to vicious or virtuous circles of divergence or convergence). Still, the potential for some partial vicious or virtuous circles of the sort does exist in the model: for example, the sending country's human capital stock has been deemed both a determinant of the rate of dissemination of the diaspora's human capital and partly a consequence of that dissemination. Thus, if the overall result of a given "emigration cycle" is to render a country poorer in terms of its human capital endowment, it is likely that the subsequent emigration cycles will have even less of a beneficial effect or even more of a harmful impact. Conversely, a positive outcome will increase the likelihood of future positive outcomes, thereby giving rise to a virtuous circle. Another similar effect is allowed for by the model as regards diaspora investment (included in G_t), which is likely to respond positively to the acceleration of economic activity in the home country.

It is interesting to note that this is in accordance with the empirical evidence that emigration can play, and indeed has played, a significant role both in the development trajectories of certain developing countries and regions – such as Korea, Taiwan and some parts of India – and in furthering the «development of underdevelopment» (in Gunder Frank's formulation) of other countries – such as numerous LDCs, particularly in Africa. In turn, this seems to support the view of the world-systems school (as opposed to the dependency school) that «allows for the possibility of development for semi-peripheral countries» (Papademetriou and Martin, 1991:25; Peschard, 2005), even in the context of an inherently unequal international capitalist system in which emigration can serve as yet another means through which «surplus is siphoned off» (Papademetriou and Martin, ibid:10) from the periphery.

Reading this through the lens of the suggested migration-development model, what this suggests is that there is likely to be certain configurations of parameters and/or policies (most likely to be found in the semi-periphery) that enable emigration to facilitate convergence, as well as other configurations (most likely to be found in the periphery) that cause emigration to act as yet another divergence mechanism. Moreover, the scope for some of the latter peripheral countries to adopt "optimal" policies may well be constrained by ineluctably unfavourable parameters. Thus, one final suggested step in the "roadmap" for future research consists of further exploring the idea of particular configurations of the relevant parameters in the model being associated with the sending countries' position in the capitalist world-system[113], so as to avoid "one-size-fits-all" policy recommendations.

8. INTERNATIONAL MIGRATION AND SENDING COUNTRY DEVELOPMENT: THE POLICIES

This chapter explores the issue of the policies aimed at increasing the benefits of international migration for the sending countries – and reducing its costs – under the light of the analysis developed so far. It does so rather briefly, due to the space limitations of a work of this kind. The aim is to provide an overview of some of the most commonly implemented policies, with occasional reference to the best-known or most remarkable examples, and to draw attention to some policy conclusions that result from the discussion carried out in the previous chapters. Ideally, I would also have liked to present a comparative assessment of the effectiveness of the various policy instruments, but that aim is hindered by the fact that, as stated by Farrant et al (2006:47), «little or no formal evaluation of these [policy] mechanisms has taken place. (...) There is a pressing need for (...) a global audit, as it were, of policy relating to migration and development».

The emphasis is on the policy instruments at the disposal of sending country governments, in view of the fact that they are the ones with the greatest political legitimacy and obligation to maximise the welfare of their constituents. However, many of these policies can be, should be and have been implemented by other political agents – be it at the local, regional, international or supranational levels. As might be obvious, some of the policies presented in this chapter should be (and again, in many instances have been) given special consideration by multilateral development agencies, as well as by host country governments concerned with the pursuit of policy coherence in the fields of migration management and development cooperation.

113. Skeldon (1997) makes some interesting and well-founded headway in exploring the association between migration regimes and the countries" (or regions') role in the capitalist world-system, in his case according to a five-tier classification consisting of the «old core», the «new core», «core extensions», the «labour frontier» and the «resource niche».

In accordance with the framework adopted throughout this dissertation, this chapter is itself divided into three sections, dealing with the policies that address the costs and benefits that we have described as being associated with the migrants' exit, presence abroad and return, respectively. Before proceeding, however, a brief general discussion of the rationales for policy intervention in this field is useful. As highlighted by Ostergaard-Nielsen (2003; see also Easterly, 2002), governments represent particular organised political interests and should not be expected to act at all times as benevolent maximisers of the welfare of their citizens (regardless of how that welfare might be measured). Moreover, each sending country, government and diaspora has its own particular trajectory, which may include a history of transnational political alliances, active participation in civil conflicts (e.g., through diaspora financing of one or more of the warring parties) and/or a history of governmental neglect for the well-being of the migrants themselves alongside an interest in taking as much from them as possible. It is therefore important «not to gloss over the relations between citizens and their countries of origin, not to assume a mutual level of trust between migrants and their country of origin, and not to take sending countries' policies and incentives for granted» (Ostergaard-Nielsen, 2003:6). The rationales for policy intervention in the management of emigration (as in any other sphere) are varied and, in a realist approach to politics, should ultimately be expected to reflect the collective self-interest of the social groups represented in government.

An altogether different thing from the "positive" assessment of how and why governments intervene, however, is to ask the "normative" question as to when *should* governments intervene. A possible answer from a liberal perspective[114] is that, as regards efficiency, state intervention is warranted with respect both to the provision of public goods and to the creation of incentives for the agents to "internalise" the social costs and benefits of their actions (i.e., their externalities). On the other hand, as regards equity, redistributive action (of income or various forms of capital) by the state may be justified on the grounds of the political selection of a given social welfare function over another, ranging from Pareto-complying additive social welfare functions to the egalitarian «maxi-min» social welfare function put forth by John Rawls (Rawls, 1993).

In addressing the issue of policies in the migration-development sphere, we should be mainly concerned with the former policy objective (efficiency) over the latter (equity). This is not because equity is less important a goal for society, but because the two objectives can be separated in theory and in

114. Although not certainly from the ultra-liberal perspective found amidst certain schools of economic thought.

practice: efficiency must be sought by the government *ex-ante*, whereas equity can always be guaranteed *ex-post*. Therefore, the justification for government policies in the migration-development sphere should ultimately lie either in the need for the provision of public goods that are sub-optimally provided by society (if left to itself) or in their contribution to the agents' internalisation of the positive or negative externalities of their actions. With respect to the latter category (internalisation of externalities), policy intervention should ideally consist of putting in place positive incentives ("carrots") in the event of positive externalities not being taken into account by the agents in their decisions, as well as negative incentives ("sticks") in the event of negative externalities. Of course, these incentives should ideally be strictly proportional to the externalities that they seek to address in order to ensure maximum efficiency.

A crucial aspect in assessing externalities (and, consequently, in determining "optimal" intervention) is the issue of rights and entitlements. A given agent can only be deemed to suffer from a negative externality if he is in any way being harmed in his rights and entitlements – and, conversely, the concept of positive externality only applies if the agent experiences an expansion in the quantity or quality of his rights or entitlements. A negative externality *does not* exist when an agent does not experience as large an expansion in the quantity or quality of his or her rights and entitlements as he or she might if things had gone otherwise. Take, for example, the issue of human capital flight, or the "brain drain": the participation of the holders of the "fleeing" human capital in the domestic production process *would* have given rise to positive externalities for other domestic agents *had* the holders of that capital chosen to remain in the sending country. However, the fact that they choose not to *does not* give rise to negative externalities – only to positive externalities that might have been but were not. The consequence is that, in addressing the "brain drain" as well as other sources of "lost" positive externalities, the proper policy incentives should consist of "carrots" rather than "sticks". Doing otherwise (i.e. addressing the "brain drain" as a negative externality) would contradict the basic liberal premise that an individual is entitled to use his time and skills in whatever way he chooses, provided that he does not harm others. These apparently obvious considerations are in order because of the (more common than might be expected) tendency by numerous authors and sending country governments to recommend or implement the levying of explicit or implicit taxes on emigration in general and skilled emigration in particular[115].

Now that we are in possession of a positive description of the migration-development nexus (see previous chapters) as well as of a normative benchmark against which to assess the adequacy of policy interventions, let us proceed to the critical presentation of the policies proper.

8.1. Policies to address exit

The first and most basic type of policy intervention in the field of the emigration-development nexus consists of seeking to influence the actual number of migrants leaving the country. Any such attempt, whether aimed at increasing or decreasing the level of emigration, is necessarily the result of an implicit or explicit stance as to the harmful or beneficial character of emigration (be it based on ideology or on a more careful assessment of its costs and benefits). Tables 5 and 6 present data taken from the 2004 World Economic and Social Survey (UNDESA, 2004), published by the UN's Department of Economic and Social Affairs, on worldwide government views and policies on emigration. It is to interesting to notice that, as of 2003, the vast majority of the world's governments viewed the level of emigration from their countries as either «satisfactory» or «too high». Only in seven countries, all from «less developed regions» (two of which LDCs), did governments view the level of emigration as «too low», thereby considering that more emigration would be a positive thing for their country. Likewise, only 11 out of 194 countries reported having policies in place aimed at raising the level of emigration[116].

115. However, as we shall see, this does not rule out that governments include deterrence clauses in the contracts that they enter into, in the best interest of society. For example, subsidising investment in education (through the public schooling system) makes sense to the extent that due to the positive externalities that education typically gives rise to, there will be sub-optimal demand for it at the "market" price. Thus, governments may (and indeed should) wish to make sure that such subsidies are well spent in the sense that they indeed do give rise to the positive externalities whose "internalisation" they are supposed to ensure.
116. In an e-mail exchange with Mr. Alex Julca of the UNDESA, I was able to find out that these conclusions were based on «government responses to periodic inquiries carried over by the UN Population Division (...) with respect to the level of emigration» and that «when responses are not given, official and updated documents released by governments are used to infer their answers – which is doubly checked with officials». One likely limitation of this survey is the fact that it does not consider the possibility that governments may actually wish to raise the general level of emigration while seeking to contain the emigration of the highly-skilled. Mr. Julca acknowledged this limitation by stating that «developing countries experiencing both "brain drain" and "low-skilled" migration may have a dilemma to rank their views, but that falls beyond of what the questionnaire inquires».

Table 5. Government views on emigration, by groups of countries according to the level of income, 2003

	Number of countries			
	Too low	Satisfactory	Too high	Total
World	7	142	45	194
More developed regions	0	36	12	48
Less developed regions	7	106	33	146
Least developed countries	2	40	7	49

(source: UNDESA, 2004)

Table 6. Government policies on emigration, by groups of countries according to the level of income, 2003

	Number of countries			
	Raise	Maintain / No intervention	Lower	Total
World	11	137	46	194
More developed regions	1	35	12	48
Less developed regions	10	102	34	146
Least developed countries	2	38	9	49

(source: UNDESA, 2004)

Naturally, the issue of the creation of incentives aimed at influencing the potential migrants either to migrate or to remain in the country is closely linked to the thorny one of the determinants of migration (see Chapter 2). For example, the "neoclassical *vs.* NELM" discussion with regard to where lies the *locus* of control of the migration decision-making process leads to different conclusions as to who should be the object of the positive or negative incentives (the potential migrant individuals or their households and/or communities). On the other hand, it is clear that many of the determinants of the decision to migrate cannot be influenced by policy: the "attraction" (in its various dimensions) of the potential destination areas is one such determinant. As for the relative "repulsion" of the sending areas, which is closely associated with those areas" level of (lack of) development in the broadest possible sense, it seems clear that decreasing it is a (or *the*) policy goal in itself, which is why it makes little sense to specify it as a migration policy instrument. No government in its right mind would under normal circumstances consider creating additional difficulties for its citizens in order to encourage them to emigrate, nor would it seek to improve the lives of those citizens primarily so that they do not migrate, instead of simply for the sake of it[117]. For these reasons, policies aimed at raising the level of emigration have typically focused on facilitating the migration process itself, whereas "retention" policies have most commonly consisted of creating incentives to discourage the emigration of the highly-skilled[118].

As regards the former policy strategy, numerous labour-exporting countries have opted for the creation of government ministries, agencies or programmes specifically dedicated to managing emigration, such as the Bureau of Manpower, Employment and Training in Bangladesh, the Office of the Protector of Emigrants in India (UNDESA, 2004), the Philippine Overseas Employment Administration (IOM, 2005), or the Mexican Programme for Mexican Communities Abroad (Ostergaard-Nielsen, 2003). The Filipino case (O'Neil, 2004; IOM, 2005) probably provides the most accomplished example of a systematic attempt to facilitate emigration through the integrated management of the recruitment process, largely motivated by the twin goal of reducing domestic unemployment and raising the level of remittances. Prospective migrants are chosen according to their skills, technical proficiency and professional credentials, have to attend a "Pre-departure Orientation Seminar" and are automatically entitled to insurance, pre-departure loans for them or their families and post-return loans to facilitate the reintegration process. In turn, recruitment agencies undergo a strict accreditation process, placement fees are regulated and minimum labour standards enforced, most often through standard employment contracts. Moreover, the Filipino government has sought to provide on-the-job assistance to its emigrants by creating Workers' Resource Centers in several emigrant-receiving areas, which provide «medical assistance, welfare, support and rescue services, social facilities and training venues» (id, ibid:244), as well as by negotiating bilateral agreements with several host country governments.

117. The possible exception, as we shall see, concerns the emigration of the highly-skilled.
118. There are, of course, exceptions to this rule: several authoritarian governments actively seek to prevent their citizens from fleeing the country, often by force; and others have been found to «discriminate against women who wish to emigrate, through, for example, preventing women from migrating without their guardian's consent or setting age limits that only apply to women» (UNDESA, 2004:87).

The integrated management of the emigration process by the Filipino government is an excellent source of inspiration for other countries wishing to bring emigration into their development policy agendas and is both a consequence and a cause of the very high rates of emigration from this country (almost 9% of the population of the Philippines is estimated to live outside the country, half of them on temporary contracts; id, ibid). Catering to the needs of this especially numerous and vulnerable segment of the population is of course a major concern, but the implementation of these policies is itself likely to have significantly contributed to raising the level of emigration to its current numbers. Moreover, the Filipino emigration management policy can be considered to touch upon nearly all the variables that we have seen to impinge upon the beneficial or detrimental character of emigration – from the selection of the migrants to their welfare and integration while away to assistance upon returning.

As for the countries that seek to implement "retention" policies (46 world-wide by 2003, according to the data in Table 5), it is clear that, for the vast majority, this reflects a concern with the impacts of the "brain drain". It is mostly the highly-skilled that developing countries seek to retain, as it is mostly the highly-skilled that developed countries seek to attract. The policy options for doing this are varied and, again, basically consist of either "sticks" or "carrots". On the side of the former, we find for example the implementation of codes of conduct aimed at preventing the recruitment of workers from especially sensitive sectors in especially sensitive regions. One such example is provided by the Code of Practice on International Recruitment of the UK National Health Service, which restricts active recruitment of health care personnel in developing countries (Farrant et al, 2006). While codes of conduct such as these may be laudable to the extent that they seek to address the problem of the "brain drain" "hot spots", their relevance as a policy instrument remains limited because their implementation and enforcement is ultimately dependent upon the will of agents in the host countries. As highlighted by Skeldon (2005:30-31), «policies that seek to restrict the migration of the highly-skilled are likely to be counterproductive (...and...) more likely to result in the skilled resorting to irregular channels of migration than keeping them at home». Moreover, as highlighted in DRC (2006:1), codes of conduct are not only «problematic and difficult to implement» but they also «exclude certain individuals from opportunities and therefore, if implemented, could be seen to be discriminatory on the basis of origin».

Another possible policy option aimed at discouraging emigration and addressing the issue of the "brain drain" is the idea of levying a tax on emigration, to be paid by emigrants upon leaving or while away in addition to their fiscal obligations to the host country (Farrant et al, 2006; Skeldon, 2005). This latter proposal was first put forth by Jagdish Bhagwati and its aim would be both to reduce the level of (skilled) emigration and to provide some sort of "compensation" to the sending countries for the loss of human capital. In addition to the difficulty of implementation, such a scheme (in a way akin to imposing mandatory remittances to the benefit of the sending country government) has the problem of being implicitly based on the idea of a "right of ownership" by the sending country over its nationals, which is of course highly criticisable. Indeed, any "negative" incentives to actual or potential migrants are likely to contribute to further alienating them from playing a role in the development of their home country. Restricting the possibility of regular emigration contributes to keeping away those that do emigrate, much in the same way as many receiving countries have found that restricting the possibility of legal immigration contributes to keeping in those that do immigrate irregularly.

Therefore, the creation of positive incentives to discourage emigration (particularly of the highly skilled) seems to be a wiser option, insofar as it is probably more effective, easier to implement and ethically more commendable. Such "carrots" should be strategically employed, i.e. directed to individuals holding especially scarce and valuable skills, deemed to be at high risk of emigrating and with little prospects of eventually "giving back" (through the remittance of various forms of capital and the possibility of return with added competences) as much as they "take away". When that is considered to be the case, policy incentives should be designed to address the migrants' real motivations: for example, it has been found on numerous occasions that highly-skilled migrants (including from the "hot spot" sectors of health and education) often choose to migrate because of the poor working conditions, unavailability of training opportunities and lack of prospects of career advancement as much as (or even more so than) they do because of the relatively higher wages to be earned elsewhere (DRC, 2006; Farrant *et al*, 2006; Saravia and Miranda, 2004). Therefore, considering the budget constraints that almost by definition afflict developing countries and the difficulty of competing with advanced nations strictly as regards wages, it is probably wiser to employ the scarce available resources in improving the working conditions and social status of the potential migrants whose skills are so highly valued by society.

One final policy aspect with regard to the "brain drain" concerns the broader issue of educational policy reform. Indeed, one of the lenses through which the problem of human capital flight is presented concerns the fact that developing countries are in fact throwing scarce resources out the window by investing (often considerably) in the training of professionals that, upon leaving, prevent their home country society from benefiting from the positive externalities associated with their work that motivated public investment in their training in the first place. While this may to some extent be true, the proper policy conclusion to be drawn may not be that the country in question should keep subsidising the training of those professionals and try to keep them from leaving at all cost. Instead, it may prove wiser to cut down subsidising to investment in skills subject to international demand, given that that demand will itself ensure the profitability of the decision to invest (O'Neil, 2003). The scarce resources thus saved could then be used to improve the wages and/or working conditions in the most "sensitive" sectors, thus making it possible to reach the "desired" level of output (for example, a given rate of medical coverage) by subsidising the demand side of the market instead of its supply side.

If and when governments do decide to subsidise the supply side of certain sectors by providing public financial support to the acquisition of skills, it is also probably wiser not to concentrate scarce resources in providing expensive tertiary education to a small number of individuals, who will then face strong international demand for their skills. Instead, investing in the primary and secondary education and vocational training of a larger number of individuals will likely yield higher returns to society, given that the individuals benefiting directly from it will experience less international demand for their skills and will therefore be less likely to migrate (Sriskandarajah, 2005). Moreover, opting for a "broader-based" and "more basic" approach to educational policy may in fact be a good idea even if we do not bring the possibility of emigration into the equation. In the healthcare sector, for example, as suggested in DRC (2006:3), developing countries might be well advised to be «opting for training systems more appropriate to the needs of the majority of poor rural people», i.e. producing a larger number of doctors and nurses with less skills but who can make a difference locally nonetheless, despite (or with the added advantage of) the fact that those skills are less marketable internationally.

In any case, all the "sticks" and "carrots" that we have briefly reviewed only make sense to the extent that the losses to the sending country outweigh the gains that accrue from the emigration of some of its nationals. While this is certainly true in the so-called "brain drain hot spots", in the vast majority of the remaining cases less attention than desirable is probably being paid to the benefit side of this cost-benefit assessment – especially because the scale and intensity of the benefits can itself be influenced by policy. In the following section, we shall briefly review some policy options aimed at seeking to turn the migrants' presence abroad to the advantage of those staying behind, specifically by tapping into their potential to remit various forms of capital and increase the sending countries' linkages with the rest of the globe.

8.2. Policies to address transnational linkages

As we have seen in previous chapters, the potential of migrants to contribute in various ways to the development of their countries of origin is considerable, and increasingly so. In the words of the Secretary-General of the UN (United Nations, 2006:2), «today's migrants are, more than ever before, a dynamic human link between cultures, economies and societies».

Fulfilling this potential involves ensuring that the migrants themselves have access to as large a "pool of resources" (financial wealth, knowledge and social linkages) as possible and that they be willing to "remit" as large a share of those resources as possible to agents in the home country. The first conclusion to be drawn from this briefest of outlines of a desirable strategy for tapping into the diaspora is that trying to talk the migrants into contributing to the domestic development process without seeking to improve their situation abroad is doubly counterproductive: not only will less integrated and worse-off migrants typically have access to a smaller "pool of resources", they are also likely to resent their home country's government's neglect towards them and limit their transactions with the home country to those driven by strictly private (altruistic or self-interested) motivations.

Of course, sending country governments suffer from a «capability gap» as regards the situation of their migrants abroad (Ostergaard-Nielsen, 2003:5), i.e. they are to a large extent unable to significantly improve it given that the migrants are not even in a territory under their jurisdiction. However, this does not mean that nothing can be done: for example, sending country governments can apply diplomatic pressure towards signing bilateral agreements that specifically cater to the migrants' interests, e.g. by making provisions for skills' accreditation in order to prevent deskilling or the international transferability of pension entitlements should the migrants wish to return[119]. In sum, an integrated and comprehensive "diaspora strategy" should begin by seeking to maximise the migrants'welfare (a goal in itself) as well as their access to various forms of capital, within the confines of the sending country government's "capability gap".

119. We shall return to these issues in this and the following section.

The other component of this equation is the migrants' propensity to contribute to the domestic development process, either as a by-product of privately motivated transactions or as a consequence of a real commitment towards the welfare of those remaining behind. In order to cultivate the sort of allegiance towards the home country that motivates the latter and facilitates the former, many governments have relied on a variety of policy options. Many of these policy options are essentially symbolic, which makes them particularly attractive in terms of implementation cost.

The two best-known possibilities consist in granting voting rights to emigrants in domestic elections and allowing for the possibility of dual citizenship (id, ibid). The former has already been adopted by numerous countries, but evidence of its effectiveness remains somewhat limited insofar as the diaspora's abstention rates are in many instances very high. As for the issue of dual citizenship, it seems to be a particularly good idea, at least from a theoretical point of view: access to nationality or citizenship rights in the host country is an important turning point in the migrants" quest to improve their situation and have access to a larger potential "pool of resources". Forcing the migrants to choose between giving up their original citizenship rights and the access to citizenship in the host country ultimately amounts to forcing them to choose between severing a significant symbolic tie with the home country (and being less certain of a successful experience in case they wish to return) and relinquishing the possibility of a more stable and prosperous life in the host country. If we consider that the (economic) cost of this policy option to the sending country is virtually insignificant, it makes perfect sense that granting the possibility of access to dual citizenship be another component of a well-designed diaspora strategy[120].

Other policy options of a similar kind consist of activities aimed at reminding «former citizens of their national or ethnic heritage and evok[ing] loyalty to the government and the state» (Ostergaard-Nielsen, 2003:17). These include «the celebration of national days, teaching programmes, religious education and services» (id, ibid) and the granting of awards to distinguished diaspora members. While all these measures may have some potential to contribute to the desired goal of ensuring the maintenance of meaningful linkages (whether symbolic or not) between the diaspora and the sending country, it is also important to bear in mind that they have a high ideological content and, as such, may be quite controversial in that only a portion of the home country population (and of the diaspora) may actually agree with that content.

120. Naturally, this policy option is itself constrained by the "capability gap" since it presupposes that the host country also recognises the right to dual citizenship.

Alongside trying to make sure that the migrants have access to the largest possible pool of resources and that they maintain a general sense of belonging and commitment towards home country development, the next component in a comprehensive diaspora policy package consists of policies aimed at maximising the actual flows of various forms of capital, namely by creating incentives that affect the migrants' propensity to remit that capital (or disseminate it) and devising ways to maximise its positive impact. The most commonly implemented policy measures in this category concern remittance flows, and can basically be divided into two groups: i) policies aimed at increasing the volume of remittances and ii) policies aimed at increasing their beneficial impact.

With regard to the former objective, governments have experimented with a variety of policy instruments. South Korea, for example, imposed a mandatory remittance requirement of up to 80% of the migrants' income in the 1980s, which, according to Carling (2005:41), «could be implemented because the vast majority of emigrants were employed by Korean contractors abroad». The problem is that not only is a policy of this kind feasible only under very specific circumstances (due to the "capability gap"), it is also obvious that the migrants themselves are probably not too happy with such mandatory requirements, which will therefore serve to alienate them and probably undo any positive effects of the "allegiance" policies presented in the previous paragraphs. Thus, a more commendable approach may be that adopted by the post-independence Eritrean government (Carling, 2005; Ostergaard-Nielsen, 2003), which asked its emigrated nationals to voluntarily hand over to the state 2% of their income in order to support the effort to (re)build the new country. However, even policies such as these that do not contain a "mandatory" component will only be successful under a particular set of circumstances, which in the Eritrean case have to do with the recent access to independent statehood. Migrants (or anyone else, for that matter) are not likely to be willing to pay voluntary taxes to the state unless they feel the sort of commitment that is only possible in this kind of situations. Indeed, the long-term viability of this sort of strategy is threatened by the possibility that the feeling of urgency associated with particularly agitated times will wane after some time, as well as by the possibility of resentment among the migrants for the government's misuse of the money or for not having their own interests looked after.

More feasible options in the area of remittances consist in the creation of economic incentives to foster remittances and migrant FDI. Typical initiatives in this sphere have included the creation of domestic bank accounts for emigrants with special *premia* and/or tax exemptions and the issuing of government bonds specifically targeted at emigrants (Carling, 2005). These incentives, which have been experimented with in countries as diverse as India, Israel, China and the Philippines, may constitute an effective way to draw in the migrants' financial resources, but it is important to bear in mind that discrimination on the basis of the place of residence can foster resentment among the non-emigrant population.

Another famous policy option first introduced in Mexico is the creation of "matching funds schemes", whereby remittances (typically collective and originating in HTAs) aimed at investment in local community development are "matched" by proportional funds disbursed by the local, regional and/or central authorities. As explained in Farrant et al (2006:41), «in the Mexican state of Zaracas, for example, each dollar contributed in remittances is matched by three dollars, one from the municipality, one from the state and one from the federal government». The aim of these incentives is not only to increase the volume of remittances but also to channel them to projects and activities that have high social returns (typically local "commons" such as water pumps, schools, roads, etc.).

Migrant FDI is typically more pro-cyclical and self-interested than remittances, which is why it is likely to respond to the same general determinants that influence FDI in general. The main difference consists of the fact that emigrants usually have a greater endowment of social capital *vis-à-vis* their home country as well as greater awareness of its cultural and regulatory specificities, which likely translate into comparative advantage as compared to other foreign investors. Therefore, in deploying special incentives to migrant FDI (which can range from fiscal benefits to exemption from restraints on the import of capital goods to the creation of "one-stop shops" to alleviate the bureaucratic burden: Carling, 2005; Ostergaard-Nielsen, 2003; Farrant et al, 2006), it is important to ensure that those incentives are "equitable" in the sense that they favour migrant investors over domestic investors, on one hand, and other foreign investors, on the other, only to the extent that the positive externality component of their investment be deemed to exceed that of the other categories of investors. In the words of Kadria (2004, cit. in IOM, 2005c:8), «countries need to identify specific sectors where there is a social return of expatriate investment that is higher and more sustainable than market returns». In any case, FDI (whether of migrant origin or not) is ultimately a function of expected returns along with associated risk, which is why numerous authors have pointed out that the most important and effective policies in this field concern sound macroeconomic management and facilitating microeconomic policies such as measures to reduce bureaucracy or to secure property rights[121].

An area where there remains much scope for policy intervention is that of remittance transfer mechanisms (Carling, 2005; House of Commons, 2004). As we have seen in Chapter 4, migrants rely on a variety of mechanisms to send their money home, from in-kind transfers to informal networks to official channels. Now, it has been pointed out that «there is no systematic difference in the developmental impact of [formal] over [informal] systems and [that] informal systems often offer considerable financial and other advantages for the migrants themselves» (Farrant et al, 2006:21). The reasons why many governments are keen on fighting informal transfer mechanisms have to do with a preoccupation with the possibility of associated transnational criminal activities (mostly a concern to be found among migrant-receiving countries) and an interest in maintaining state control over the flows (a concern for the migrant-sending countries, since such control is a prerequisite for levying taxes, securitising remittances and carrying out macroeconomic planning under less imperfect information). While this is to some extent understandable, it is worth pointing out that since there is no substantial difference in terms of their developmental impact, governments should probably be more concerned with other issues that do matter more, such as the reduction of transfer costs.

While there is evidence from around the world that transfer costs have been falling in recent times as the remittance market has expanded and as the level of competition among money transfer operators has increased (e.g. Orozco, 2003), it is clear that even the relatively smaller current fees and commissions on remittance transfers have little correspondence with the actual cost of the transfer for the money transfer operators, particularly when electronic mechanisms are used. Therefore, fostering competition in the remittance transfer market, both by reducing regulatory barriers to entry (which are usually highly restrictive in the financial sector) and by promoting the financial literacy of the migrants, should remain an important concern for policy. Again, this is to some extent constrained by the "capability gap", but a lot can be done at both the national and international levels that will serve the interests of the migrants, their families and the sending country in general.

121. Easterly (2002:239) provides a shortlist of government actions that, by compromising the future in one way or another, create poor incentives for growth and discourage investment: «high inflation, high black market premiums, high budget deficits, strongly negative real interest rates, restrictions on free trade, excessive red tape, and inadequate public services».

Alongside seeking to increase the volume of remittance flows, sending country governments should also seek to ensure that their impact is as large and beneficial as possible. Of course, remittance-receiving households will likely spend the money in the best way they see fit, so it seems that it does not make much sense to try and influence those spending decisions (e.g. consumption *vs.* saving, consumption of domestic goods *vs.* consumption of imported goods, etc). In accordance with the perspective adopted throughout this dissertation, however, the creation of such incentives *does* make sense in the presence of externalities – and the different forms of remittance use indeed give rise to different externalities.

Let us imagine a number of alternative ways in which a remittance-receiving household can use the money[122]: a) saving it in the bank; b) hoarding it, i.e. saving it by storing it at home or outside the banking system in any other way; c) spending it on domestically produced consumer goods; d) spending it on imported consumer goods; e) spending it on health and education; or f) investing it in setting up or expanding a business. Traditional criticism of remittances as being unproductive was based on the idea that only the "f" option would increase the country's productive capacity and have a developmental impact. However, we have seen (and rendered explicit in the model) that that is not quite accurate: it has been widely acknowledged that "e" amounts to investment in human capital with an important developmental impact and positive economy-wide effects; "a" serves to increase the money supply, which will under normal circumstances reduce the interest rate and increase investment; and the effect of "d" will be that the money will change hands within the economy and can then be used by the subsequent "multiplier" agents in any of these ways. Consequently, the only "less favourable" options are hoarding and spending on imported goods. Hoarding "removes" liquidity from the economy and prevents it from being invested by other agents, whereas consumption of imported goods has an immediate welfare expansion effect for the household but does not give rise to an expansion of the country's productive capacity, nor to (domestic) multiplier effects.

There are a few lessons that we can draw from this somewhat oversimplified exposition. First of all, remittance-receiving households are in a better position than anyone else to decide which use is best for their money. However, the private returns to their options often do not match their social returns: investment in human capital is one such option, with social returns higher than private returns. The "hoarding option", as compared to saving the money in the bank, is another: under certain circumstances, e.g.

122. In reality, we have seen that, bearing in mind that remittances are not earmarked for any particular use, what matters is the way in which the overall pattern of household spending is changed by remittances.

a generalised lack of confidence in the banking system or the fact that the nearest branch of any bank is simply too far away, there will be little incentives for the household to deposit the money in the bank – which will prevent it from being invested by other agents and prevent the monetary multiplier from taking hold.

Another conclusion that can be drawn is that it probably does not make much sense to «implicitly target» (Carling, 2005) remittance-receiving households with policy measures aimed at creating incentives for them to invest the money themselves: if the goal is to increase investment, then the wise thing to do is to encourage saving through the banking system. In turn, the banking system will take care of "selecting" the investors with the best ideas or business plans and lend the money to them – probably with much greater efficiency than if that selection is made on the basis of whether or not a given household has had one of its members migrate. Another reason why "implicit targeting" makes little sense is because the money will have changed hands after the first round of remittance spending, possibly to "non-migrant" households.

Of course, all of the above presupposes that a solid, efficient and wide-reaching banking system does exist, which is why probably the single most important set of policy measures aimed at enhancing the impact of remittances concerns an issue of possibly even farther-reaching developmental consequences than migration: the development of the financial sector. Specifying how this should be done clearly falls outside the scope of this dissertation, but the crucial aspects to bear in mind are the importance of: i) ensuring good financial governance, in order to ensure trust in the system and efficiency in the allocation of financial resources; and ii) "banking the unbanked" (Orozco, 2003), so as to prevent hoarding. One possible way of doing this is to lift restrictions to Micro-Finance Institutions (MFIs) – while seeking to ensure good governance on their part –, given that MFIs probably have the greatest potential as regards reaching out to the "unbanked", particularly in poor remote areas.

Through the development of the financial sector, sending country governments will have addressed the first major "leakage" of the multiplier (hoarding). The second one (imports) is more problematic, because the way to address it is through protectionist measures, which are both increasingly difficult to implement under the WTO and usually conducive to inefficiency[123]. Alongside seeking to "maximise" the multiplier, governments

123. Protectionist measures such as tariff or non-tariff barriers implicitly tax consumers to the advantage of non-competitive domestic producers. Not only is this inequitable, cross-country regression analyses have also shown that in the vast majority of the cases it

can then create incentives for the agents (migrants and non-migrants alike, given the problems associated with "implicit targeting") to value the future over the present, thereby expanding the country's productive capacity and creating economy-wide positive externalities. Policy measures aimed at promoting saving, investment and human capital formation all fall within this category, although their importance (and discussion) clearly reaches farther than the migration-development nexus.

So far in this section, we have mainly focused on the policy implications of the developmental impact of remittances and migrant investment. However, we have seen that the potential of diasporas to contribute to development also concerns other forms of domestic capital formation – that of human capital, for instance. I did mention that remittances can themselves contribute to human capital formation to the extent that they increase spending in education and health, but what I am referring to now is the specific potential of diasporas to tap into foreign "pools" of human capital and contribute to domestic human capital formation through the dissemination of knowledge, ideas and technologies. As specified in our model (equations 32, 52 and 55; see Chapter 6), this is largely a function of: i) the diaspora's own human capital endowment; ii) the quantity and quality of linkages between the diaspora and the sending country; iii) the domestic capacity to absorb the dissemination of human capital, which mostly depends on the already existent stock of human capital; and iv) specific incentives and conditions aimed at facilitating dissemination.

Consequently, a comprehensive policy package in this particular field should include measures to address all of these aspects. The first one (which is the one most constrained by the "capability gap") can be addressed, for example, through skills' accreditation agreements aimed at preventing "brain waste" situations. The second policy goal, i.e. formation and upkeep of "type 1" social capital, has been pursued through the variety of policy measures that we have discussed in the beginning of this section (dual citizenship, national days, etc). Another possibility that was yet to be mentioned is the realisation of diaspora conferences aimed at putting diaspora members in touch with each other and with home country residents for a variety of purposes – as regards human capital dissemination, conferences that specifically involve scientists and highly-skilled professionals seem most promising. The third policy goal, i.e. increasing the

also deters growth (Easterly, 2003). On the other hand, advocates of the "infant industry" argument claim that comparative advantages are themselves produced and that therefore protectionism is warranted for as long as domestic industries make progress along their "learning curve". This issue falls outside the scope of this dissertation, however, so I will leave it at that.

domestic absorptive capacity, is an end in itself (insofar as that absorptive capacity is a function of the already existent human capital stock) to be pursued through the sending country's educational, science and technology policies. As for the fourth policy category, i.e. specific incentives and conditions aimed at facilitating dissemination, there is a wide range of policy options at the disposal of sending country governments, which deserve further elaborating.

There are basically two ways in which technical and scientific diasporas (Meyer and Brown, 1999) can contribute to the dissemination of knowledge and ideas in the sending country: through providing training and consultancy as of temporary visits and assignments[124]; and through "strictly international" contacts using a variety of methods, among which the internet plays a central role. Sending country governments and other agents with an interest in promoting development can provide incentives and/or the infrastructure to facilitate the two.

As regards the former, there is by now vast experience of programmes and other initiatives aimed at encouraging "circular migration" and temporary return, particularly of the highly-skilled. IOM's MIDA[125] and UNDP's TOKTEN[126] provide good examples of such programmes being implemented by supranational development and migration management bodies, although there is also an increasing number of examples of national initiatives (e.g. the Thai Reverse Brain Drain Project: Farrant et al, 2006).

We can draw on information from the MIDA website[127] to exemplify what sort of activity can be undertaken within the ambit of these programmes. Thus, among other things, IOM's MIDA programme «ensures that the rights and status acquired by migrants in host countries are preserved by guaranteeing them freedom of movement to and from their countries of origin»; «identifies priority skill needs and investment possibilities [and] compiles assignments, job vacancies and investment opportunities [in the countries of origin]»; «identifies available skills, financial and other resources of Africans in the diaspora for transfer [as well as] Africans in the diaspora with the necessary financial resources to invest in Africa»; «establishes and maintains an updated data bank [and] matches the identified priority skill needs with identified skills, financial and other resources of

124. I am assuming that if the visit is "permanent" rather than "temporary" , we are then addressing the issue of return migration instead of that of the diaspora's contribution to human capital formation.
125. See footnote 83.
126. See footnote 84.
127. http://www.iom.int/MIDA/

Africans in the diaspora»; and, finally, «provides assistance, where required». In sum, the implementing agency (in this case, the IOM) provides the collective logistic and information infrastructure as well as incentives («assistance, where required»), thus overcoming the limitations that stand in the way of diaspora members who may be willing to contribute to the development of their country of origin but cannot find interesting opportunities to do so on their own.

Although programmes and initiatives specifically aimed at matching diaspora skills with sending country needs certainly have their merit, the idea of drawing on the diaspora's human capital potential can also be mainstreamed into other activities of the government and/or development agencies. One way in which international development agencies can contribute to this aim, for example, is by untying[128] their technical assistance and drawing on «the knowledge and expertise in the diaspora to plan and/or implement development activities» (Farrant et al, 2006:42).

The example of the MIDA programme that we have just seen is also interesting in that it also explores the other avenue for the dissemination of diasporic human capital, i.e. dissemination from afar and relying on the new information technologies in particular. The MIDA website specifically states that «the transfer of skills, financial and other resources is carried out through virtual / tele-work or satellite based information technology systems», alongside more traditional platforms. Governments and international agencies are not alone in this endeavour: as we have seen (supra, p. 76), numerous bottom-up scientific diaspora networks have been created in the recent past that explore this possibility to the advantage of the scientists and professionals directly involved in them as well as to their country of origin's. Recognising the potential for positive externalities contained herein, sending country governments may wish to support already existent networks and facilitate the emergence of new ones by providing the collec-

128. 'Tied" development assistance consists of disbursements that have to spent on goods and services provided by the donor countries. This limitation on the use of development assistance has often been used by donor countries in order to serve the interests of domestic producers, but is of course less beneficial than "untied" development assistance for the recipient countries, which is why the tendency is for monitoring agencies such as OECD's DAC to criticise their use. However, whereas financial assistance (i.e. grants or high loans under favourable terms) is increasingly untied, technical assistance (i.e. «the provision of advice and/or skills, in the form of specialist personnel, training and scholarship, grants for research and associated costs» – taken from the website of UK Department for International Development: www.dfid.gov.uk) remains largely tied: technical assistance remains typically «provided by expert consultants based in the donor country or other high income countries» (AidWatch, 2002).

tive logistic and information infrastructure and/or by creating specific incentives (monetary or otherwise).

This section sought to present a brief overview of the policy options associated with the diaspora's potential to contribute to sending country development. The three main lessons that can be drawn are that: i) there is indeed a vast number of ways in which sending country governments can legitimately and effectively affect the scale of the harmful and beneficial effects of emigration that are specifically associated with the migrants" presence abroad; ii) the potential of migrants and diasporas to contribute in various ways to the development of their country of origin depends, first and foremost, on their own welfare, stability and access to resources; and iii) many of the most strategic policy interventions that are required in order to maximise the developmental potential of migration do not just concern the migrants and their families and communities – instead, they lie at the very core of the sending country's broader educational, scientific, technological, macroeconomic and financial sector policies, to name but a few of the most important areas.

Despite all the advantages of having a resourceful, committed and intervening diaspora, some return migration will always inevitably occur that will bring an end to the transnational diasporic flows that were associated with the returning migrants, while giving rise to other beneficial effects. As the reader may recall from the discussion in the previous chapters, it is in fact possible that under certain circumstances, it is in fact a good thing (from a developmental perspective) that it does occur. The next section therefore closes our overview of policies in the migration-development sphere by looking into policy options aimed at influencing the scale and consequences of return migration.

8.3. Policies to address return migration

The developmental impact of return migration depends on the volume and characteristics of the return migration flows as well as on the country of origin's capacity to "absorb" those flows and the various forms of capital associated with them. The former aspect can be influenced by sending country policymakers through the deployment of specific incentives aimed at influencing the migrants' ("or their households') assessment of the relative advantages and disadvantages or returning as opposed to remaining in the host country. Bear in mind, however, that the decision to move from one country to another on a permanent basis is a heavy one, which makes it likely that, at the individual level, substantial incentives will have to be deployed in order to significantly influence that decision. Moreover, while also possibly responding to specific incentives in the case of relatively indecisive cost-benefit assessments, some categories of returnees[129] are mostly motivated by factors that by and large cannot be influenced by policy in one way or the other (think of "retirement", "failure" or "necessity" returnees, for example). For these reasons, the most usual approaches by sending country governments to return migration in general have been "low-cost" ones, involving streamlining procedures and disseminating information, but avoiding costly individual incentives. A good example is provided by Thomas-Hope's (1999:198) presentation of Jamaica's Returning Residents Programme, which basically provides «information; duty concessions for eligible persons; streamlining of systems and procedures to facilitate the relocation process; and encouragement to persons who wish to participate in the workforce».

As regards "returnees of motivation", however, what we find is a different picture: given the potential advantages associated with the return of each individual high-skilled, capital-rich and/or entrepreneurial returnee, it can pay off to deploy more costly individual incentives. Thomas-Hope's description of another Jamaican government programme aimed at promoting the return of expatriate Jamaican professionals (the Return of Talent Programme: id, ibid:199) is telling in this respect (and provides a nice overview of specific options for policymakers wishing to pursue this goal): «financial incentives offered were one-way air fares for the candidate and immediate family members; up to fifty per cent of the cost of shipping household goods; a one-time re-entry subsidy; two-year full medical and accident insurance; monthly salary subsidy; and equipment, including literature and machines, required for the candidate's work». Other countries such as Taiwan have successfully sought to attract highly-skilled expatriates by creating facilitating conditions for the creation of a critical mass of returnees: the Taiwanese government's «most celebrated achievement» in this field has been the creation of the Hinschu Science-based Industrial Park (O'Neil, 2003). Alongside specific incentives such as «subsidised Western-style housing and commercial services» (id, ibid), it was the prospect of additional returns to each returning migrant's human capital (made possible by the spill-overs that result from the spatial concentration of human capital) that successfully attracted returning migrants and high-tech companies along with them.

The general conclusion is that policies to decisively influence return migration can be effective, but are also costly and should probably be imple-

129. In accordance with the modified Cerase taxonomy adopted in the previous chapters.

mented only when there is some degree of certainty that the migrants can contribute more to their country of origin by returning than by remaining in the host country and contributing in all the transnational ways that we have discussed. Moreover, keeping to the rationale for policy intervention previously presented in this chapter, the expected differential social returns to each of the two options should of course be large enough so as to offset the cost of implementing the policy itself. In the meantime, it is probably a good idea to implement policy initiatives that, at a very low cost for the sending country, can contribute significantly to the potential returnees' welfare and to a less constrained decision on their part, such as seeking to negotiate with host countries the international transferability of retirement pension entitlements, or exempting migrants from paying duties on the import of goods upon returning.

If and when the migrants do return, governments should not only honour the commitments made in order to influence that decision, but also assist what is often a especially vulnerable group in reintegrating successfully, so that the country's economy and society can benefit fully from their skills, financial capital and other resources. Specific government assistance and follow-up upon their reintegration in the housing and labour markets as well as in the schooling system seem warranted in this respect and have indeed been implemented in a variety of countries (Diatta and Mbow, 1999; Nair, 1999; Thomas-Hope, 1999; IOM, 2005).

Although far from exhaustive, the overview of policy options in the migration-development sphere presented in this chapter has hopefully provided the reader with an idea of the most relevant issues, the most commonly implemented policies and some of the most remarkable successes.

The overview of policies in this chapter has also shown that policy initiatives in this field are still very much in their infancy (most were first introduced in the last couple of decades), which helps explain why some of them seem relatively ineffective or even counterproductive in view of our reading of the migration-development nexus. Further developments are certainly to be expected in the near future, the main trend apparently consisting of many labour-exporting countries making «the transition from "export and return" policies to "global nation policies'», as Ostergaard-Nielsen (2003:8) argues is already happening in the case of countries like Mexico, the Dominican Republic and Turkey. Interesting times lie ahead.

9. CONCLUSIONS

We set out on this journey across the migration-development nexus warned in advance of its complex and unsettled character. After surveying thousands of pages of relevant theoretical and empirical literature and applying deductive reasoning to the relevant processes, it seems obvious that that warning was justified. The complexity of the issues is well illustrated both by the number of variables and equations in the suggested migration-development model and by the constant need to digress into other theoretical and policy domains. Its unsettled character is most obvious in the fact that, in the vast majority of the cases, it is not hard to tell whether a given author is convinced *a priori* of the harmful or beneficial overall impact of international migration for the sending countries. Yet, if one thing is certain, it is that emigration has certainly proven harmful in some cases and beneficial in others.

Another thing that is certain is that international migration is one of the main avatars of globalisation, i.e. the increasing integration and interdependence of the world's societies and economies. Whether that increasing integration and interdependence is a good thing, and especially whether it is a good thing for all those involved, is itself a highly contentious issue: advocates of liberalism, comparative advantage theory and/or linear pathways to development will argue that is, whereas dependency and world-systems theorists and those sharing in their views in various ways will argue that it is not, since development necessarily breeds underdevelopment in a world of unequally distributed power.

In order to shed some additional light on how this works in the field of international migration, I have sought to systematise the migration-development nexus (or *nexa*) by developing what I have called the migration-development matrix: a suggested analytical tool for assessing the costs and benefits of emigration by classifying them in accordance with two analytical axes – the logical moment in the migration process (exit, presence abroad and return) and the component of the production function experiencing positive or negative changes (labour, capital, human capital, social capital and the residual total factor productivity). Due to the difficulties and controversies that characterise the concept of social capital, I have also spent some time and energy in trying to devise an approach to this concept that was both coherent and useful for the discussion of the migration-development nexus.

While it will hopefully have become apparent throughout this dissertation that there is some heuristic worth to the "migration-development matrix" approach, I have also pointed out on several occasions that its adequacy is highly dependent on the adequacy of the specified production function. Although labour and capital (from the classical days) and human and social capital (in more recent times) cannot be dismissed as relevant inputs for production, I must acknowledge the possibility that other relevant inputs, upon which emigration may have a relevant impact, are being disregarded.

The essentially methodological chapter on the migration-development matrix – which was preceded by an introductory chapter on development as a determinant of migration with the aim of setting the stage for the subsequent discussion – was followed by a systematic attempt to analyse each of the "cells" of the migration-development matrix by critically surveying the literature. Several conclusions emerged. First of all, it became apparent that because people respond to incentives, the effects of international factor flows are seldom as simple as they may seem at first glance: there are brain gains to go with the brain drains, for instance, or reductions in the labour force brought about by remittances. It also became apparent that some of the literature fails to adequately conceptualise some of the issues: the traditional criticism of remittances provides one such example, by failing to take into account their multiplier effect or the fact that spending in health and education is in fact investment in human capital; assessments of the "brain drain" as a «double» or even «triple» loss provide another. In my view, this is likely explained by the disciplinary origins of its authors and their lack of familiarity with the tools and insights of neighbouring scientific disciplines, which only underlines the need for interdisciplinary approaches to this intrinsically interdisciplinary subject.

The conclusions drawn from this systematic analysis were then tentatively formalised in a chapter entirely dedicated to developing a logical model representing the migration-development nexus. The result, was not an actual model ready for empirical testing, but a theoretical construct made up of logical decompositions and hypothetical behaviour equations that nevertheless made it possible to express the developmental impact of emigration (understood as an increase or decrease in productive capacity) ultimately as a function of a set of parametric and instrumental variables. At the same time, this formalisation exercise made it possible to further highlight some of the intricacies, trade-offs and path-dependent dynamics that characterise the migration-development nexus. Finally, it has hopefully rendered clear how far we still are from a "deterministic" policy approach to migration and development (or virtually any other policy area, for that matter), but it has also provided an outline of a "roadmap" in the direction of this ideal limit.

The last chapter was dedicated to the policy options and implications that resulted from the preceding discussion. Although only the briefest of presentations of the policies was made, it will hopefully have provided the reader both with a possible benchmark against which to assess the legitimacy of policy interventions in this domain and with a basic portfolio of policy alternatives. Among the main general conclusions to be drawn, we have found that: i) sending country governments are constrained by a "capability gap" in their efforts to maximise the benefits and minimise the costs associated with international migration; ii) despite this "capability gap", there is scope for policy intervention (and a history of past successes) in virtually every aspect of the migration-development nexus; iii) tending to the needs of the migrants themselves and ensuring that they have access to as large a pool of resources as possible is both commendable in itself and a prerequisite to optimising their role as a «dynamic human link» between the sending country and the rest of the world; and iv) many of the most strategic policy interventions that are required in order to maximise the developmental potential of migration lie at the very core of the sending country's broader educational, scientific, technological, macroeconomic and financial sector policies.

As we get to the end of this journey, I am well aware that the migration-development nexus remains as unsettled as it was at the beginning. However, I also hope to have made a modest contribution to meeting «the need to develop a set of robust analytical tools that do justice to this complex phenomenon» (Farrant et al, 2006:46). Migrants, their families and communities and the citizens of developing countries in general can certainly benefit from well-informed, efficient and equitable policies.

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