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Working Paper 26  
December 2003  
<http://tampub.uta.fi/econet/wp26-2003.pdf>

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ISSN 1458-1191  
ISBN 951-44-5869-9

# ASYMMETRIC ATTITUDE TOWARDS EMIGRATION AND IMMIGRATION

## National Interest in Income Tax Policy

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### ABSTRACT

Western countries have disapproved of emigration restrictions more than of immigration restrictions. The paper uses a variant of the model of optimal income taxation under migration to seek a rationale for the prevalent asymmetric attitude. Optimal policies are derived through maximization of the welfare of the initially existing population. There are two types of individuals, distinguished by their types of labour. These individuals may migrate between two countries, "home" and "foreign". The results show that under emigration income redistribution will according to tradition be incomplete: transfer recipients will always have lower disposable incomes. Moreover, an emigrant, skilled or less skilled, will gain, otherwise he would not move. On the other hand, under immigration of taxpayers there are situations where taxpayers will have lower after-tax incomes than transfer recipients. If instead, transfer recipients are those who immigrate, optimal redistribution is conventional. Consequently, an approving attitude towards emigration is easy to understand as well as the opposite attitude towards free immigration. However, the explanation is not complete. More conclusive analytical results should be obtained.

Keywords: resistance to migration, welfare, tax policy

Earlier versions of this work have been presented at the 11<sup>th</sup> ESPE Conference in Colchester, at the 53<sup>rd</sup> IIPF Congress in Kyoto, at the Nordic Tax Seminar 1997 in Oslo and at the 4<sup>th</sup> SSCW Conference in Vancouver. I thank the participants at the presentations, and particularly Andreas Haufler, Fred Schroyen and Vidar Christiansen, for valuable comments and suggestions. In addition, I thank Antti Kanto for fruitful discussions and technical help.

## 1. INTRODUCTION

The basic fact of migration is that an individual changes his residence and employment from one country to another. The phenomenon of migration implies not only that an individual has decided to leave the country in which he is living but also that the potential host countries have decided whether to accept the immigrant or not (except in the case of movements back to the country of origin, where this problem does not usually arise). During the past few decades, the world has witnessed a very significant easing of restrictions in the exchange of both goods and services. This has also been evidenced in the flow of capital. Nevertheless, the movement of people is still subject to quite significant restrictions.

Western countries have disapproved of emigration restrictions more than of immigration restrictions. The immigration of individuals has been subject to strict control everywhere. However, this is not true of emigration. Any restriction of the freedom to emigrate is often considered to be an infringement of human rights.<sup>1</sup> Italy, for instance, has undergone a migration transition from an emigration to an immigration country. At the same time it has become a reluctant land for immigration. During the period of emigration, Italy enacted no immigration policies, but at present there are stricter rules for becoming a legal resident.<sup>2</sup> Also, even though the existing association agreements within the EU as well as within the Nordic Countries proscribe any interference with the flow of people across state boundaries, immigration from outside the area, i.e. from third countries, is controlled.<sup>3</sup> In Switzerland, decisions have been adopted to stabilize the stock of foreign workers in response to public opinion hostile to “over-foreignisation” of the country.

Recently, western European countries have experienced increased migration pressures from the East and South. Still, the capacity of the countries to absorb

migrants is fairly limited. Moreover, public opinion would have great difficulty in accepting a massive influx of migrants. Immigration flows have been regulated to minimize social, ethnic and economic side effects of uncontrolled migration. This regulation has caused asylum seeking to become one of the principal means of immigration into the EU, and illegal immigration has become a topic of common public concern.<sup>4</sup> The Single European Market makes it easy for foreign workers living in one country to move to others within the same free-trade area. This enables illegal immigrants to use one EU country as a port of entry then to move on to another. Consequently, the UK government (as well as Ireland and Denmark) remains firmly committed to maintaining its own entry controls.

If migration were determined by free market conditions, we could expect to find a massive flow of people from the less developed to the more developed countries. Therefore the immigration policies of permanent labour-importing countries have become more selective. Quality as well as quantity restrictions have been set. The volume of immigration is often determined purely by the national interest: employing migrant workers should make a positive contribution to the well-being of the industrial countries admitting immigrants.<sup>5</sup> Countries aim to protect their own nationals' jobs by ensuring that foreigners are not employed at the expense of their own citizens. Immigration has been controlled, for instance, with the so called *Gastarbeiter* system<sup>6</sup>, where the level and the composition of immigrant labour is determined by demand considerations. Canada and Australia pursue a selective immigration policy. A large number of immigrants are recruited to satisfy specific labour market requirements.<sup>7</sup> Some immigration systems are ostensibly run on non-economic principles as the present control system<sup>8</sup> in the United States.

The decision to admit immigrants lies with the government of the country concerned. Control of migration may be direct, such as by imposing quotas, or indirect in that the government influences the parameters determining movement. Work permit regulations as well as "tax/transfer" options have been used.<sup>9</sup>

Migration can be encouraged or discouraged by increasing or diminishing the advantages it offers. However, an observable fact is that despite the identical material advantages that emigration offers to some group of people, not all of them will decide to leave their home country. People visualize the advantages in quite different ways and their reactions to the same material incentives may also differ. To be successful the objectives of migration policy have to meet the needs and aspirations of a large part of the migrant workers.

But why is immigration more likely to be restricted than emigration? This important policy issue has been neglected in the literature. Nevertheless, explanations have been given for the resistance to low-skill immigration.<sup>10</sup> Labour market concerns, welfare concerns and racial attitudes are suggested to be the three main factors which shape individual preferences for further immigration. The findings of Dustman and Peston (2001 and 2003) establish that both economic and racial factors appear to matter, but suggest that race is the dominant underlying issue. Mayda (2004) identifies a strong empirical regularity concerning the relationship between individual skill and attitudes toward immigrants. Non-economic variables also appear to be correlated with immigration attitudes but they do not seem to significantly alter the results in the economic explanations. This paper considers the problem from the perspective of national interest. We use a variant of the Mirrlees (1982) model. The plan of the paper is as follows. Sections 2-3 briefly review the conceptual issues of the model and introduce the welfare criterion. In section 4 we characterize the optimal income tax (redistribution) policy of the country and evaluate the desirability of migration. Section 5 is devoted to numerical calculations. Section 6 concludes.

## 2. CONCEPTUAL ISSUES

Following the model of optimal income taxation under migration in a simple two-country case<sup>11</sup> we assume a world with two types of people classed by productivity. Let there be  $N_i$  ( $i=1,2$ ) people in each category in the world which is composed of a home country (country  $d$ ) and a foreign country (country  $f$ ). Denote by  $m_i$  ( $i=1,2$ ) the equilibrium number of  $i$ -individuals at home. Thus, the domestic production function can be written as  $Y = F(m_1, m_2)$  which, for simplicity, is assumed to have constant returns to scale. Denote marginal products by  $F_i$  and consumption levels for the two classes by  $x_{ij}$  ( $i$  for consumer type,  $j$  for country;  $i=1,2$ ;  $j=d, f$ ). Everyone is assumed to have the same utility function:  $u = u(x_{ij})$ .

We assume that  $g_i(v)dv$  people of type  $i$  regard living in country  $d$  as worth utility  $v$  more than living in country  $f$  at the same consumption level. Naturally,  $v$  may be positive or negative. Let  $G_i$  be the distribution function. Consequently,  $G_i(\bar{v})$  people of type  $i$  think country  $d$  worth at least  $\bar{v}$  more than country  $f$ :

$$G_i(\bar{v}) = \int_{\bar{v}}^{\infty} g_i(v) dv.$$

Then, in equilibrium under free migration the number of people of type  $i$  in country  $d$  is

$$(1) \quad m_i = G_i[u(x_{if}) - u(x_{id})] = \int_{u(x_{if}) - u(x_{id})}^{\infty} g_i(v) dv.$$

### 3. THE WELFARE OF NATIONALS

According to Mirrlees (1982, 320) three different welfare criteria occur to people thinking about migration, depending on the group whose welfare is to count. One could restrict the group to those who do not migrate, to nationals or to all humans in the world. Depending on the migration question under consideration one might wish to define the population concerned in different ways.

In this paper we will take the national welfare point of view. We try to formulate a welfare function with which it is possible to explain why countries disapprove of emigration restrictions more than of immigration restrictions. One way of dealing with this is to assume that an initially existing national population within a country will approve of increased or reduced migration if that increases the total utility of the initial population. Then there is an equilibrium – a kind of optimum – when the existing population desires no changes in consumption levels.

Denote by  $m_i^*$  ( $i = 1, 2$ ) the number of initial population in country  $d$ . Suppose that initially consumption levels are  $x_{id}^*$ . Consider, for the welfare above, the utility of the  $m_i^*$  existing class one consumers. If there were an increase in  $m_1$ , its total utility denoted by  $W_1$  would be

$$(2) \quad W_1 = m_1^* u(x_{1d}) + \int_{u(x_{1f}) - u(x_{1d}^*)}^{\infty} v g_1(v) dv.$$

If there were a reduction in  $m_1$ , total utility would be

$$(3) \quad W_1 = G_1[u(x_{1f}) - u(x_{1d})]u(x_{1d}) + \{m_1^* - G_1[u(x_{1f}) - u(x_{1d})]\}u(x_{1f}) + \int_{u(x_{1f}) - u(x_{1d})}^{\infty} v g_1(v) dv.$$

For (2) we have

$$\frac{\partial W_1}{\partial x_{1d}} = m_1^* u'(x_{1d})$$

and for (3) we have

$$\frac{\partial W_1}{\partial x_{1d}} = G_1 [u(x_{1f}) - u(x_{1d})] u'(x_{1d}) = m_1^* u'(x_{1d})$$

in the initial position. Similarly, we could consider total utility of existing consumers of class 2. Thus, the impact on total utility owing to a small change in  $x_{id}$  is  $m_i^* u'(x_{id}) dx_{id}$ ,  $i = 1, 2$ .

#### 4. LABOUR MOBILITY AND REDISTRIBUTION

##### 4.1. Tax Rules

There are no explicit restrictions on immigration or emigration. Migration is regulated by means of tax policy, not by explicit migration regulations. The home government imposes taxes on the incomes of all residents in the country but is unable to tax emigrants. In this case there is only one resource constraint:

$$(4) \quad \sum_{i=1}^2 m_i x_{id} = F(m_1, m_2).$$

Thus, country  $d$ , in choosing  $x_{1d}$  and  $x_{2d}$ , does not worry about the resource constraint of country  $f$ . There will, of course, be changes in  $x_{if}$  as a result of changes in migration, but at the margin these can be ignored by the home country.

The government is assumed to have perfect information regarding the characteristics of the individuals and its objective is to maximize the total utility of the initially existing domestic population subject to its own budget constraint. The final number of people in the economy may be higher or lower than the initial number. No tax discrimination is allowed between people of type  $i$ ; i.e. every individual of type  $i$  in the country will receive the same after-tax income.<sup>12</sup> Thus, immigrants are given zero welfare weight in the measurement of social welfare<sup>13</sup> but they will be paid and taxed as original nationals.

The optimization problem can now be set as maximizing the Lagrange function

$$(5) \quad L = \sum_{i=1}^2 W_i + \lambda \left[ F(m_1, m_2) - \sum_{i=1}^2 m_i x_{id} - T \right],$$

where  $T$  is the predetermined level of taxes to be collected by the government and  $\lambda$  is the Lagrange multiplier of the tax revenue constraint.

From (5) we can calculate the FOCs for  $x_{id}$ ;  $i = 1, 2$ :

$$(6) \quad \frac{\partial L}{\partial x_{id}} = m_i^* u'(x_{id}) + \lambda \left[ F_i \cdot \frac{\partial m_i}{\partial x_{id}} - \frac{\partial m_i}{\partial x_{id}} x_{id} - m_i \right] = 0,$$

where  $F_i = \frac{\partial F}{\partial m_i}$ .

Here, the first term can be interpreted as the utility gain and the second as the value of the tax revenue change. The impact of a small change in  $x_{id}$  on tax

revenue in the domestic economy, assuming that marginal productivities do not change, is to reduce it by  $\frac{\partial m_i}{\partial x_{id}}(F_i - x_{id})dx_{id} - m_i dx_{id}$ .

Information about propensities to migrate can be expressed by the elasticity  $z_i^* = \frac{\partial m_i}{\partial x_{id}} \frac{x_{id}}{m_i^*}$ . With this notation, (6) can be rewritten as the modified Ramsey rule

for every  $i$ :

$$(7) \quad \frac{F_i - x_{id}}{x_{id}} = \frac{1}{z_i^*} \left[ \frac{m_i}{m_i^*} - \frac{1}{\lambda} u'(x_{id}) \right].$$

The left hand side of (7) is the tax as a proportion of after-tax income. This is not an explicit formula for the optimal tax, since  $z_i^*$  as well as  $m_i$  is a function of  $x_{id}$ .<sup>14</sup>

At the optimum

$$(8) \quad \frac{\frac{F_1 - x_{1d}}{x_{1d}}}{\frac{F_2 - x_{2d}}{x_{2d}}} = \frac{\frac{1 - \frac{1}{\lambda} \frac{m_1^*}{m_1} u'(x_{1d})}{z_1}}{\frac{1 - \frac{1}{\lambda} \frac{m_2^*}{m_2} u'(x_{2d})}{z_2}},$$

where instead of  $z_i^*$  elasticity  $z_i = \frac{\partial m_i}{\partial x_{id}} \frac{x_{id}}{m_i}$  has been used.

Suppose that  $z_i$  is constant (does not depend on  $i$  nor  $x$ ) and all individuals are taxpayers. Then,

$$\frac{F_1 - x_{1d}}{x_{2d}} \frac{x_{1d}}{F_2 - x_{2d}} \stackrel{>}{=} 1, \text{ if } \frac{m_1^*}{m_1} u'(x_{1d}) \stackrel{<}{=} \frac{m_2^*}{m_2} u'(x_{2d}).$$

Consequently, an individual of type 1 pays higher tax (as a proportion of after-tax income) than an individual of type 2 if his marginal utility weighted by the proportion of the initially existing number to the after-migration number of people in his category is lower than that in category 2. Further, if the proportions are identical in each category, i.e.  $\frac{m_1}{m_1^*} = \frac{m_2}{m_2^*}$ , a person with higher  $x$  will pay higher taxes.<sup>15</sup> All in all, denoting the resources of the economy by  $\Pi$ , the optimal choice  $(x_{1d}, x_{2d})$  must satisfy the condition

$$\frac{m_1^* u'(x_{1d})}{m_2^* u'(x_{2d})} = \frac{\frac{\partial \Pi}{\partial x_{1d}}}{\frac{\partial \Pi}{\partial x_{2d}}}.$$

Hence  $\left| \frac{\partial \Pi}{\partial x_{1d}} \right| / m_1^* \stackrel{>}{=} \left| \frac{\partial \Pi}{\partial x_{2d}} \right| / m_2^*$  leads to  $x_{1d} \stackrel{<}{=} x_{2d}$ .

## 4.2. Emigration versus Immigration

Turning now to further details of the tax structure the analysis is simplified to better understand the results and the nature of the problem. We focus on the case with just one group mobile at a time, either skilled or less-skilled workers but not both at the same time. Furthermore, since the specification of the welfare function depends on the direction of migration, the cases will be analysed separately. Taxation is assumed to be purely redistributive; the tax revenue requirement  $T = 0$ .

Consider first the case of emigration, and let  $m_2 = m_2^*$ . The number of type 1 people who remain in the economy is  $m_1 = G_1 [u(x_{1f}) - u(x_{1d})]$ , a decreasing function of  $[u(x_{1f}) - u(x_{1d})]$ . A small change in  $x_{1d}$ ,  $dx_{1d} < 0$ , induces a few people of type 1 to emigrate, and the impact on welfare

$$W = G_1 [u(x_{1f}) - u(x_{1d})] u(x_{1d}) + \{m_1^* - G_1 [u(x_{1f}) - u(x_{1d})]\} u(x_{1f}) + \int_{u(x_{1f}) - u(x_{1d})}^{\infty} v g_1(v) dv$$

$$+ m_2^* u(x_{2d}) + \int_{u(x_{2f}) - u(x_{2d}^*)}^{\infty} v g_2(v) dv$$

is

$$(9) \quad \frac{dW}{dx_{1d}} = G_1 u'(x_{1d}) + u(x_{1d}) G_1'(-u'(x_{1d})) - G_1'(-u'(x_{1d})) u(x_{1f})$$

$$- [u(x_{1f}) - u(x_{1d})] g_1(u(x_{1f}) - u(x_{1d})) (-u'(x_{1d})) + m_2^* u'(x_{2d}) \frac{dx_{2d}}{dx_{1d}}.$$

Now, totally differentiating the resource constraint (4) keeping  $m_2$  constant yields a change in  $x_{2d}$  that would arise in response to a small change in  $x_{1d}$ :

$$(10) \quad \frac{dx_{2d}}{dx_{1d}} = \frac{1}{m_2^*} [-m_1 - (x_{1d} - F_1) g_1 u'(x_{1d})].$$

For optimality

$$(11) \quad \frac{dW}{dx_{1d}} = 0.$$

Hence, using (9), (10), (11) and the fact that  $G_1' = -g_1$  we obtain the solution:

$$(12) \quad m_1 \cdot [u'(x_{1d}) - u'(x_{2d})] = (x_{1d} - F_1) \cdot g_1 \cdot u'(x_{1d}) \cdot u'(x_{2d}).$$

From this it is easily seen that under emigration transfer recipients, whether they are type 1 people (potential emigrants) or not, will always have lower disposable incomes.<sup>16</sup>

To examine the case of immigration we have to study the effects using the objective function

$$W = m_1^* u(x_{1d}) + \int_{u(x_{1f}) - u(x_{1d}^*)}^{\infty} v g_1(v) dv + m_2^* u(x_{2d}) + \int_{u(x_{2f}) - u(x_{2d}^*)}^{\infty} v g_2(v) dv$$

which implies the result

$$(13) \quad \frac{dW}{dx_{1d}} = m_1^* \cdot u'(x_{1d}) + m_2^* \cdot u'(x_{2d}) \cdot \frac{dx_{2d}}{dx_{1d}} = 0.$$

Substituting (10) into (13) we find that

$$(14) \quad m_1^* \cdot \frac{u'(x_{1d})}{u'(x_{2d})} - m_1 = (x_{1d} - F_1) \cdot g_1 \cdot u'(x_{1d}).$$

Consequently, when there is immigration of taxpayers, we have

$$\frac{u'(x_{1d})}{u'(x_{2d})} < \frac{m_1}{m_1^*}.$$

Now, since  $\frac{u'(x_{1d})}{u'(x_{2d})} > 0$  and  $m_1 > m_1^*$ , we can deduce that  $x_{1d} \stackrel{<}{>} x_{2d}$ . This means

that under immigration of taxpayers there are situations where taxpayers will have lower after-tax incomes than transfer recipients. If, instead, transfer recipients are those who immigrate, optimal redistribution is conventional and transfer recipients will have lower disposable incomes.

An approving attitude towards emigration is easy to understand from the migrant's point of view. Migration is assumed to be an increasing function of  $[u(x_{1f}) - u(x_{1d})]$ , the difference between the utilities abroad and at home. A migrant, skilled or less skilled, who decides to move, gains, otherwise he would not move. If we evaluate emigration from the perspective of national interest, the reasoning is no longer so straightforward. We cannot restrict the group whose welfare demands consideration to those who migrate; the welfare of those left behind also matters. However, it is self-evident here that under low-skill emigration those who do not migrate also gain, since economic resources (income) per individual will rise. If the emigrants are skilled, resources per person at home tend to decline. Nevertheless, emigrants themselves gain and welfare in total (assumed to depend on the utility of all natives, whether working in the country or not) is maximised. Individuals decide their residence according to the place where utility is highest.

Although attitudes are generally favourable towards emigration, free immigration is opposed. Immigrants do not become full members of the country. They are paid and taxed as original nationals, but their well-being is not taken into account; they are excluded from the welfare criterion. Desirability of immigration is evaluated from the viewpoint of total utility of the initial population. Low-skill immigration makes redistribution more costly, explaining the negative attitudes towards it. Immigration of high-skill individuals makes the country richer in the sense that the proportion of high income individuals increases. This increases the possibilities for redistribution, which is hardly opposed by any national

transfer recipient. However, as shown above, a high proportion of skilled individuals may imply excessive redistribution with lower after-tax incomes for taxpayers than for transfer recipients. Among high-skill nationals this can be considered as if not a loss, at least a kind of unfairness.

## 5. NUMERICAL RESULTS

To gain a deeper understanding of the optimal solution discussed above, we have adopted a numerical version of the model. Supplementing the theoretical construct with some hard numbers and figures will hopefully illustrate and contribute to the interpretation of the results derived. Numerical analysis can be seen as providing a check on the interpretations and a means of investigating them further. The calculations were carried out with utility function  $u = \log(x)$ . For  $G_i$  we used a logistic distribution:  $G_i(v) = N_i / (1 + e^{bv})$ , where  $v$  is the utility difference  $u(x_{if}) - u(x_{id})$ . Parameter  $b$  was chosen to be 5, and the number of people in the two categories in the world was set:  $N_1 = 1000$  and  $N_2 = 2000$ .<sup>17</sup> The total number of initial people in the home country, the native population, was assumed to be 1500 and three different ability structures of the premigration population were chosen to be explored:

- (A)  $m_1^* = 250$  and  $m_2^* = 1250$
- (B)  $m_1^* = 500$  and  $m_2^* = 1000$
- (C)  $m_1^* = 750$  and  $m_2^* = 750$ .

For simplicity, optimal policies were calculated for an economy where  $F_i$ 's are given ( $F_1 = 16$  and  $F_2 = 10$ ) and taxation is purely redistributive.

Now, it is the change in the utility difference  $u_{if} - u_{id}$  that generates population movements in this economy, provided that the  $g_i(v)$  function remains unchanged;

$i=1,2$ . For instance, a small change in  $x_{1d}$ ,  $dx_{1d} < 0$ , induces a few people of type 1 to emigrate, *ceteris paribus*. In the following, we focus our attention on the effects of changes in foreign after-tax incomes, and, contrary to the analysis in the preceding section, both types of individuals are assumed to be mobile. Under each case from A to C we have calculated: (1) the effect of  $x_{1f}$  on  $x_{1d}$ ,  $x_{2d}$ ,  $m_1$  and  $m_2$ , with  $x_{2f} = 12$ , (2) the effect of  $x_{2f}$  on  $x_{1d}$ ,  $x_{2d}$ ,  $m_1$  and  $m_2$ , with  $x_{1f} = 12$  and (3) the effect of  $x_{1f} = x_{2f}$  on  $x_{1d}$ ,  $x_{2d}$ ,  $m_1$  and  $m_2$ . The findings are shown in Figures 2.1 -4.3.

As expected, the results are sensitive to the initial (premigration) ability distribution of the population. The level of income redistribution as well as the number and distribution of the final population depend on the ability structure of the premigration population. Also, increasing disposable incomes abroad induces emigration, which, in turn, tends to raise after-tax incomes within that group at home.

Now, let us consider more closely one of the cases, say case B, in which the original population of country  $d$  (home country) consists of 500 skilled (type 1) and 1000 less-skilled (type 2) individuals. (Figures 3.1-3.3) Consider first the migration of people of type 1 (Figure 3.1). When  $x_{2f}$  is fixed ( $x_{2f} = 12$ ), there will be immigration of people of type 1, for instance with  $x_{1f} = 13$ , and emigration with  $x_{1f} = 15$ . Under the immigration optimal  $x_{1d}$  will be about 14.3 and under the emigration optimal  $x_{1d}$  will be 14.9. A situation where individuals of type 1 (taxpayers) will have lower after-tax income than individuals of type 2 (transfer recipients) is induced, for instance, by  $x_{1f} = 7$ . Similarly, we can consider migration of individuals of type 2 (Figure 3.2). When  $x_{1f}$  is fixed, then for example  $x_{2f} = 10$  will induce some people of type 2 to immigrate to country  $d$ , whereas with  $x_{2f} = 12$  some of them will move out. Here, under the emigration

optimal  $x_{2d}$  will be about 11.5 and under the immigration optimal  $x_{2d}$  will be 11.0. Excessive income redistribution occurs for example with  $x_{2f} = 19$ . In the special case (Figure 3.3) when the tax policy abroad is fully redistributive so that after-tax incomes are equalized,  $x_{1f} = x_{2f} = 11$  would mean immigration of both types of individuals to country  $d$ , whereas  $x_{1f} = x_{2f} = 15$  would make country  $f$  more attractive to many unskilled but also to some skilled people. Under the immigration optimal  $x_{1d}$  and optimal  $x_{2d}$  would be about 13.8 and 11.6, respectively, whereas under the emigration  $x_{1d} = 14.2$  and  $x_{2d} = 11.8$ . With  $x_{1f} = x_{2f} = 12$  there are individuals of type 1 who will immigrate to country  $d$  and individuals of type 2 who emigrate implying  $x_{1d} = 13.9$  and  $x_{2d} = 11.7$ .

The results show that disposable incomes for skilled individuals will be higher under emigration than under immigration, when the utility level abroad of less skilled ones is given. The same result holds true for less skilled people, when the utility level abroad of skilled people is fixed. However, in both cases the outcome has been obtained to some extent at the expense of the other group, whose domestic disposable income varies reversely. Moreover, the finding that there seem to be limit values for domestic optimal after tax incomes when the tax policy abroad is fully redistributive is interesting. Equalized after-tax incomes abroad, however, do not imply equalized after-tax incomes at home. The figures also demonstrate that there are indeed situations where excessive income redistribution occurs, as shown in section 4.<sup>18</sup>

## 6. CONCLUDING COMMENTS

It seems to be a difficult task to apply economic modelling to justify the reasons why governments disapprove of emigration restrictions more than of immigration restrictions. This paper used a variant of the model of optimal income taxation under migration to seek a rationale for the prevalent asymmetric attitude. Optimal

policies are derived through maximization of the welfare of the original population. This is a target with which the country does not try to keep people merely because they are contented, and does not try to lose them because they are miserable.

The analysis above shows that low-skill immigration leads to losses to the native-born population, whereas under out-migration of low-skill natives the country stands to gain. The total effect of high-skill emigration on the welfare of the natives, however, is not so clear. There are two opposite effects: emigration of high-skill nationals entails losses to those left behind, but generates gains to the migrants. Immigration of high-skill individuals, instead, is beneficial in tending to increase the consumption of the native-born residents. On the other hand, the present redistribution policy may lead to excessive redistribution, indicating lower disposable incomes for taxpayers, which can be regarded as an unfair result from the perspective of skilled individuals.

With a simple nationalistic model we have sought an economic explanation for the asymmetric attitude towards emigration and immigration. However, the explanation achieved is not complete. The issue needs to be more closely examined. Stronger analytical results are likely to be obtained by introducing some constraints into the original framework.

Taxation and redistribution policy could be determined at political economy equilibrium by a balance between those who gain and those who lose. In practice, however, it is not the whole population but a minority who decides on immigration and emigration. The obvious political reason for asymmetry is that immigration involves giving a concession to outsiders, whereas restricting emigration would involve restricting insiders. To put it another way, people prefer to put restrictions on other people than on themselves. If people value national homogeneity, we have an immediate explanation of the asymmetric attitude to immigration and emigration: a country does not become less homogeneous if some people leave

the country but it does if a similar number of foreigners come in. This could, perhaps, be captured by introducing congested public goods and assuming that foreigners congest more than original population. Presumably then, if there are diseconomies of scale in providing public goods one can rationalize the opposite preference for emigration and immigration.

## NOTES

<sup>1</sup> Emigration is a basic human right established by the United Nations Universal Declaration of Human Rights: “Everyone has the right to leave any country, including its own, and to return to his country”. The right of immigration, however, is not recognized by international law.

<sup>2</sup> See Martin (1994, 165) and Hall (2000).

<sup>3</sup> In the Nordic Countries citizens have enjoyed complete freedom of movement since 1954.

<sup>4</sup> A big issue is how to distinguish genuine asylum-seekers from purely “economic” migrants.

<sup>5</sup> Lately, in many European countries special programmes have been implemented to attract immigrants with specific skills.

<sup>6</sup> See Bhagwati - Schatz – Wong (1984).

<sup>7</sup> Trends in International Migration (1992), Martin – Widgren (2002, 10, 32).

<sup>8</sup> There are four major categories of immigrant: relatives of U.S. residents, employment-based immigrants, refugees (and asylees) and diversity immigrants (selected from a lottery).

<sup>9</sup> Migration, Growth and Development (1978,20), Martin – Widgren (2002, 19).

<sup>10</sup> See, for instance, Razin – Sadka (1996), Müller (2000).

<sup>11</sup> Hämäläinen (1991).

<sup>12</sup> In OECD countries, by law, migrants must be paid the same wages as others for the same hours worked.

<sup>13</sup> The assumption that immigrants are not integrated into the welfare criteria of the country is justified by the fact that only full-fledged citizens can participate in the political process and, in general, a migrant does not become a citizen right away. Thus, the maximization of the welfare of the original nationals seems to me a reasonable one to address.

<sup>14</sup> Compare the rule to the Mirrlees (1982, 322) tax formula.

<sup>15</sup> Disposable incomes  $x_{id}$  's will be equalised when workers are immobile ( $F_i$  's are equal to zero). Note

that also under migration it is possible to have after-tax incomes  $x_{id}$  's equalized, provided  $\frac{m_1}{m_1^*} \neq \frac{m_2}{m_2^*}$ .

<sup>16</sup> For transfer receiving emigrants (individuals of type 1) the right hand side of the optimality condition (12) is negative, implying that  $[u'(x_{1d}) - u'(x_{2d})] < 0$ . Consequently,  $x_{1d} < x_{2d}$ . If emigrants are taxpayers, the right hand side of (12) turns out to be positive which gives  $x_{1d} > x_{2d}$ . Accordingly, transfer recipients, whether potential emigrants or not, will have lower disposable incomes.

<sup>17</sup> Note that in this case we have:  $v = \log(x_{if} / x_{id})$ ,  $m_i = [x_{id}^b / (x_{id}^b + x_{if}^b)] N_i$  and  $N_i - m_i = [x_{if}^b / (x_{id}^b + x_{if}^b)] N_i$  ( $i = 1,2$ ). – See Figure 1.

<sup>18</sup> See Leite-Monteiro (1997).

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Figure 1. (a) The percentage of people choosing domestic country and (b) the corresponding probability density as a function of domestic after-tax income  $x_d$  ( $x_f = 12$ )

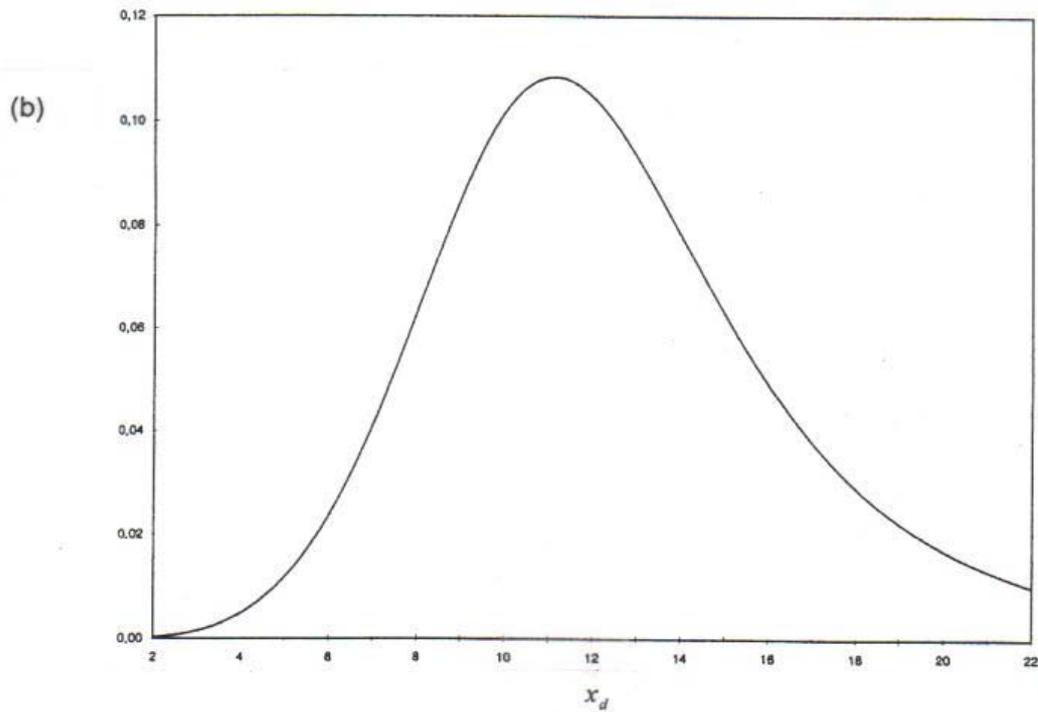
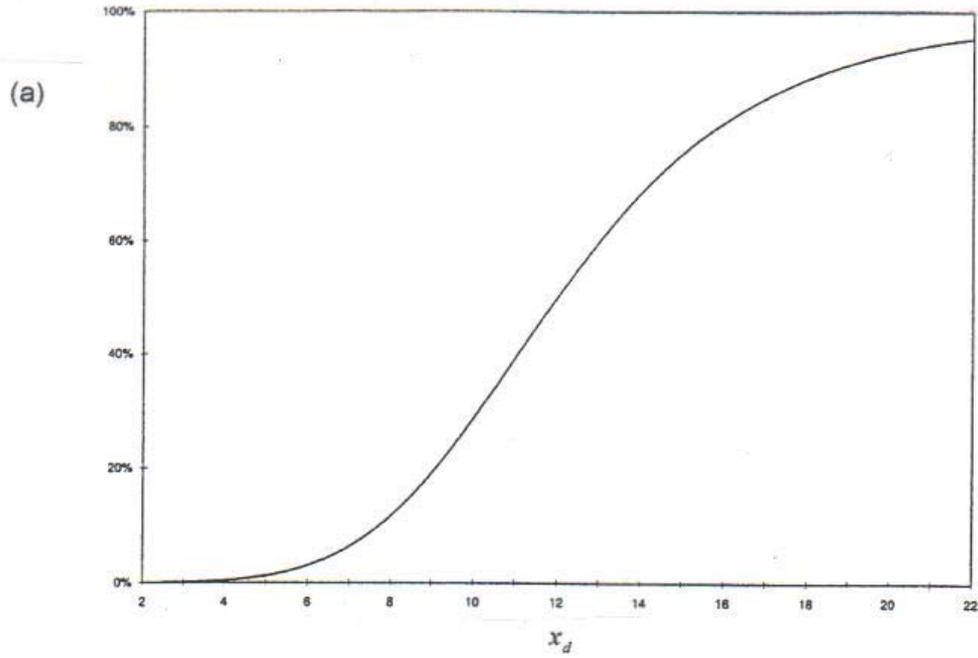
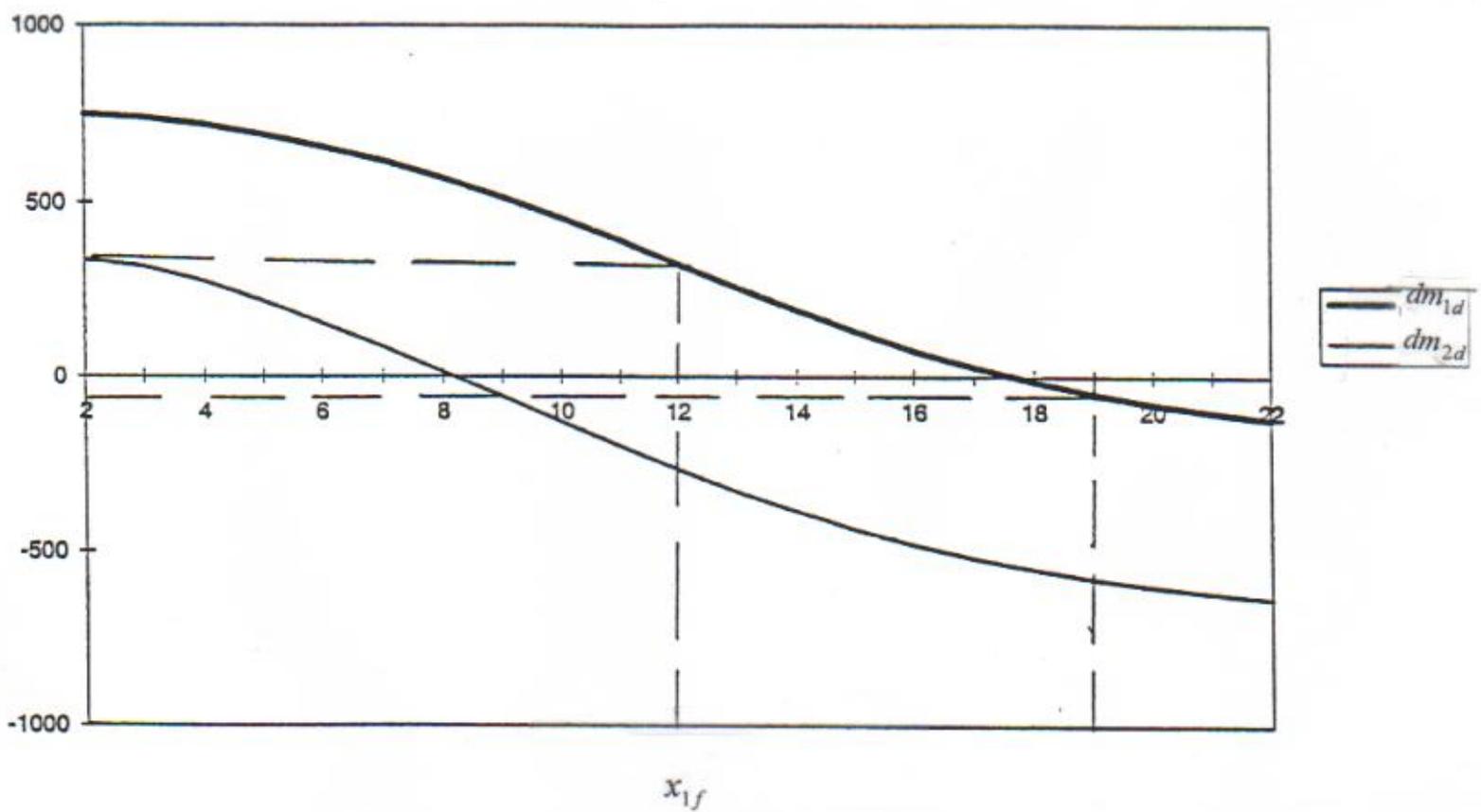


Figure 2.1 (a) The effect of  $x_{1f}$  on  $dm_{1d}$  and  $dm_{2d}$ , Case A



(b) The effect of  $x_{1f}$  on  $x_{1d}$  and  $x_{2d}$ , Case A

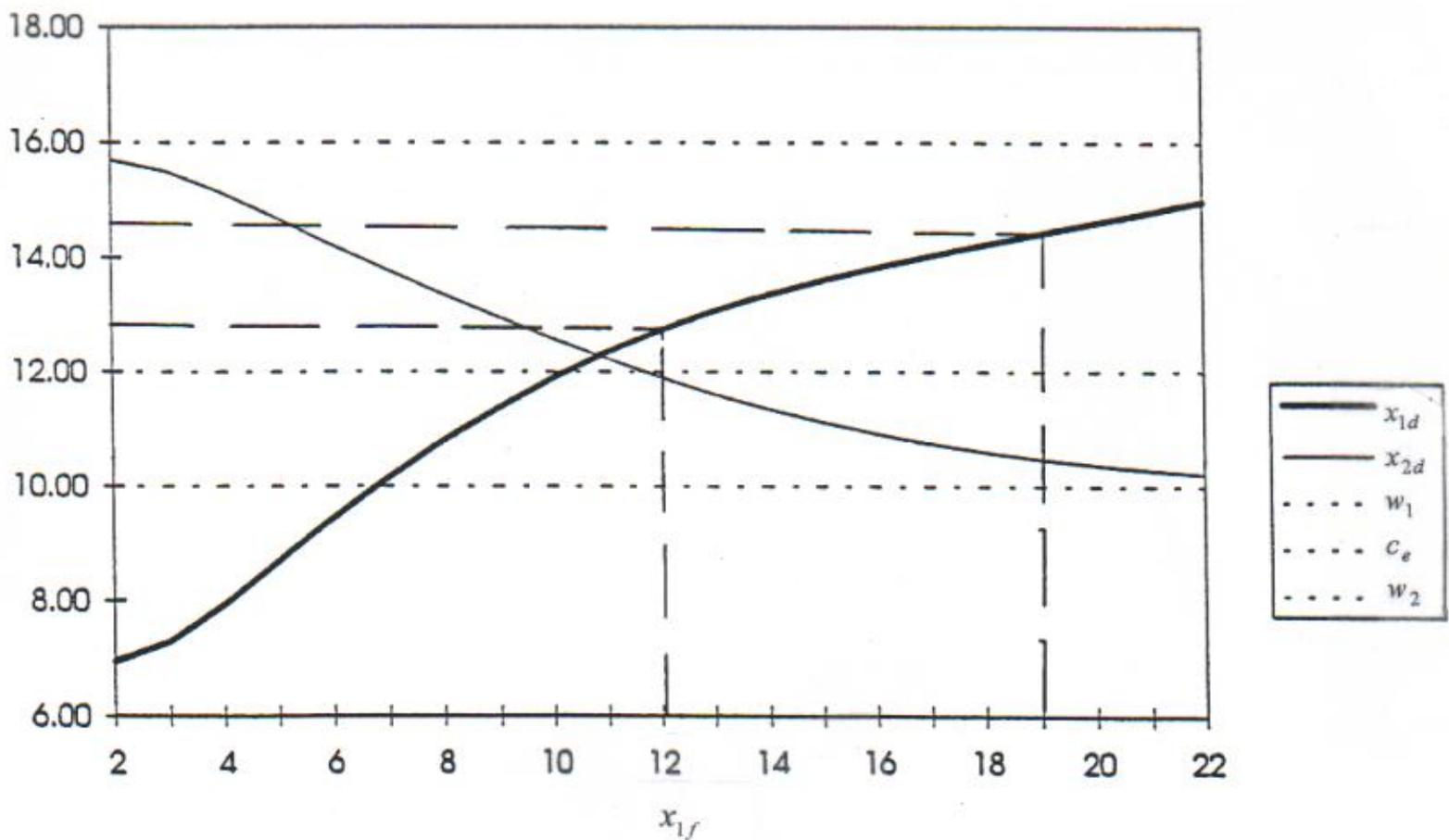
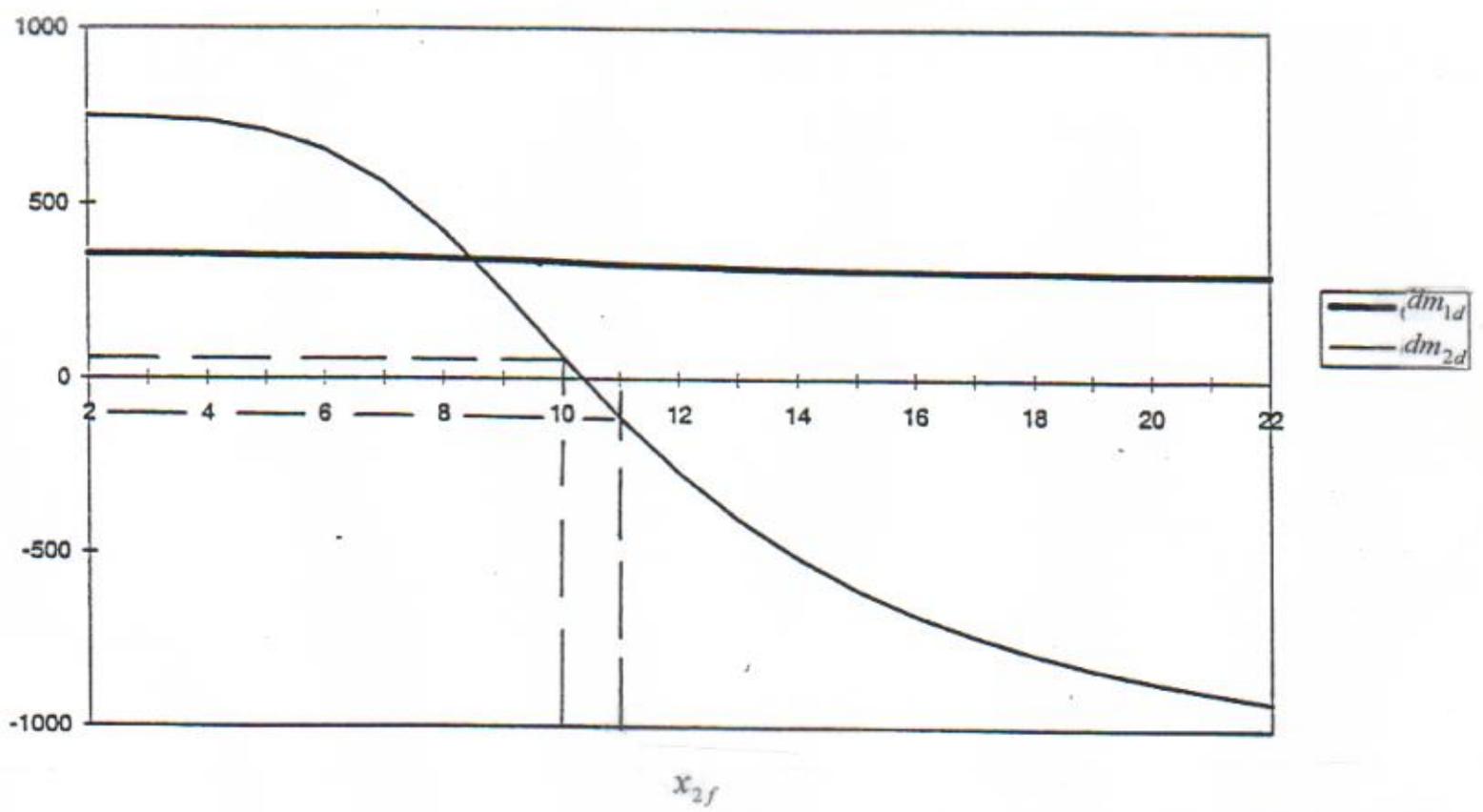


Figure 2.2 (a) The effect of  $x_{2f}$  on  $dm_{1d}$  and  $dm_{2d}$ , Case A



(b) The effect of  $x_{2f}$  on  $x_{1d}$  and  $x_{2d}$ , Case A

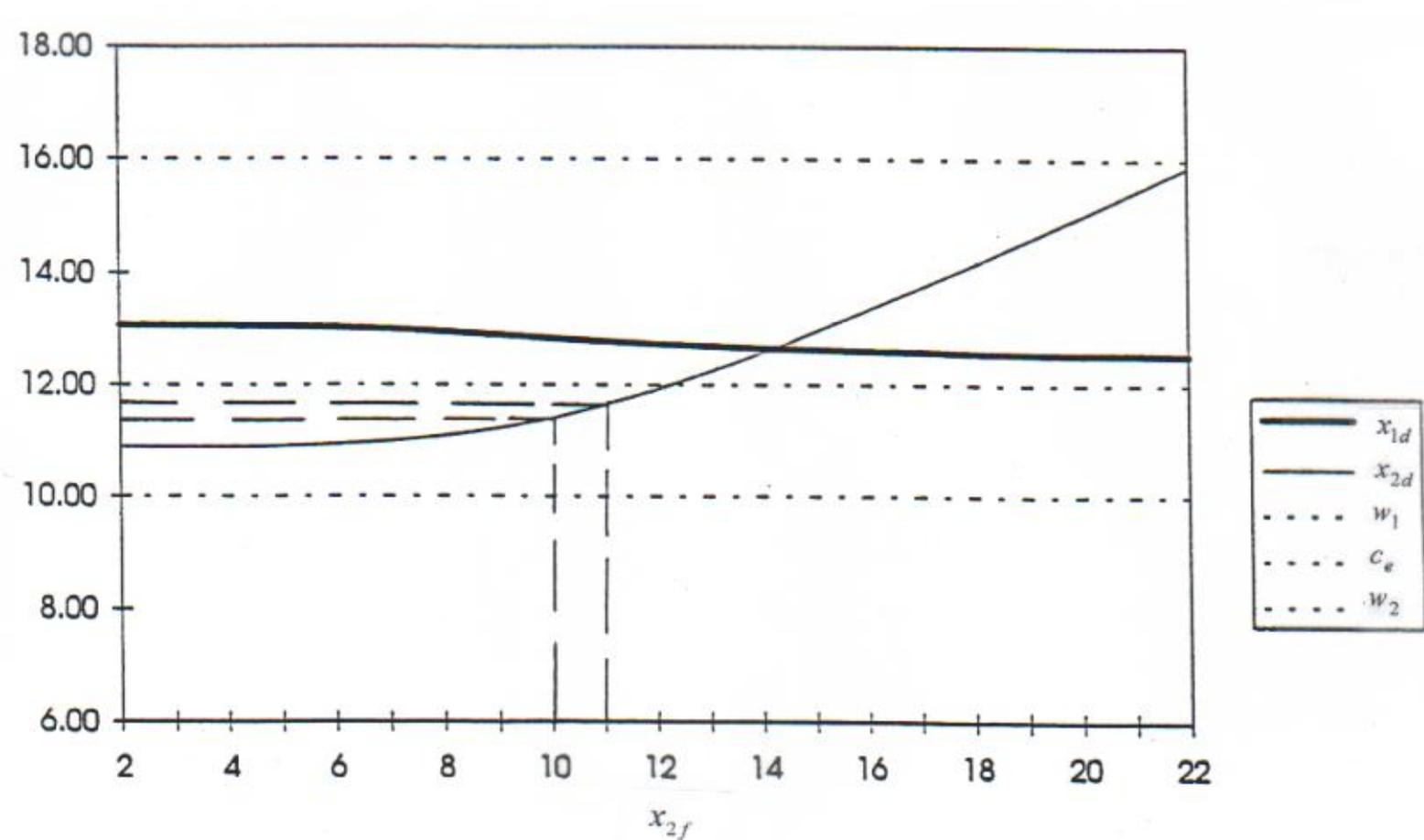
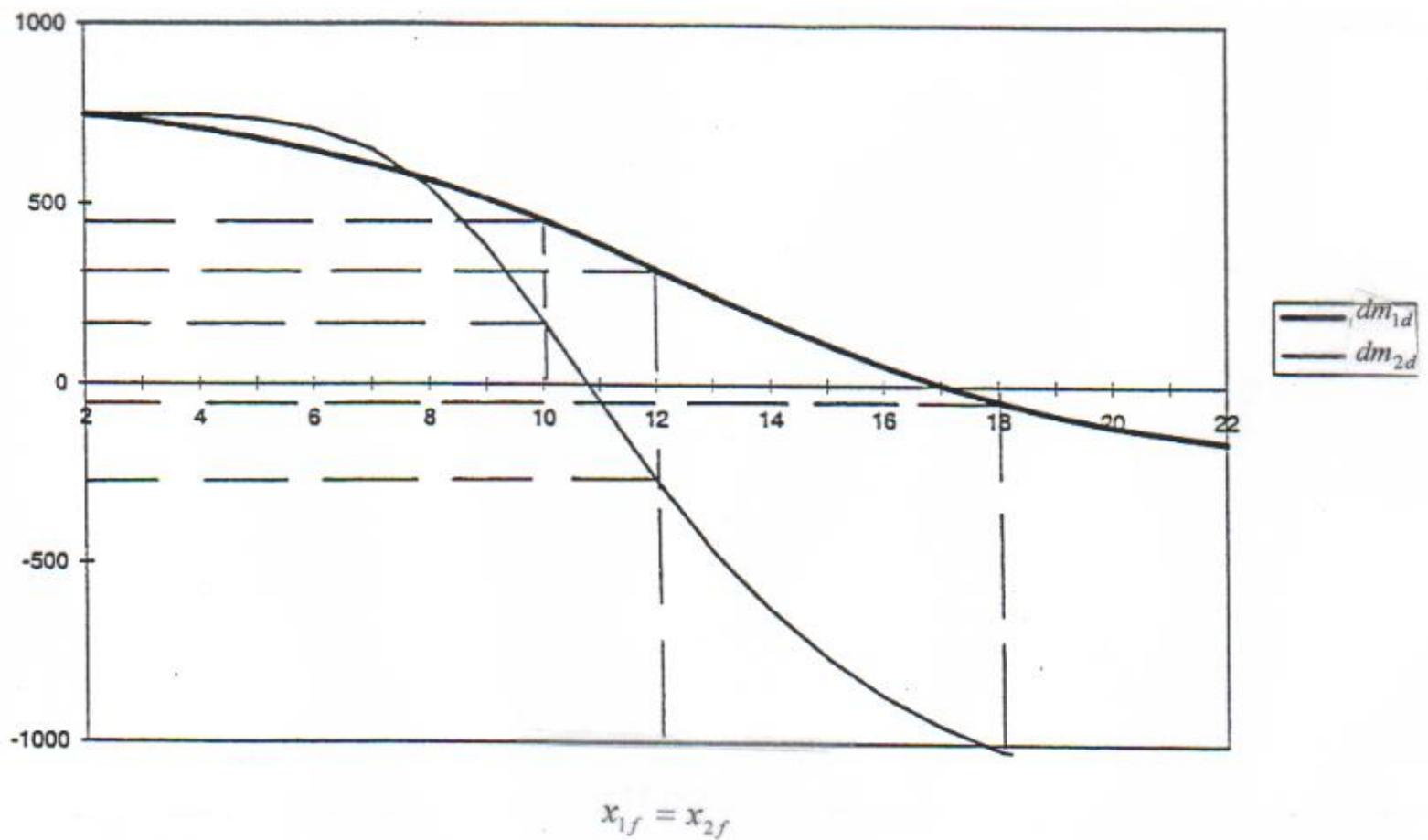


Figure 2.3. (a) The effect of  $x_{1f} = x_{2f}$  on  $dm_{1d}$  and  $dm_{2d}$ , Case A



(b) The effect of  $x_{1f} = x_{2f}$  on  $x_{1d}$  and  $x_{2d}$ , Case A

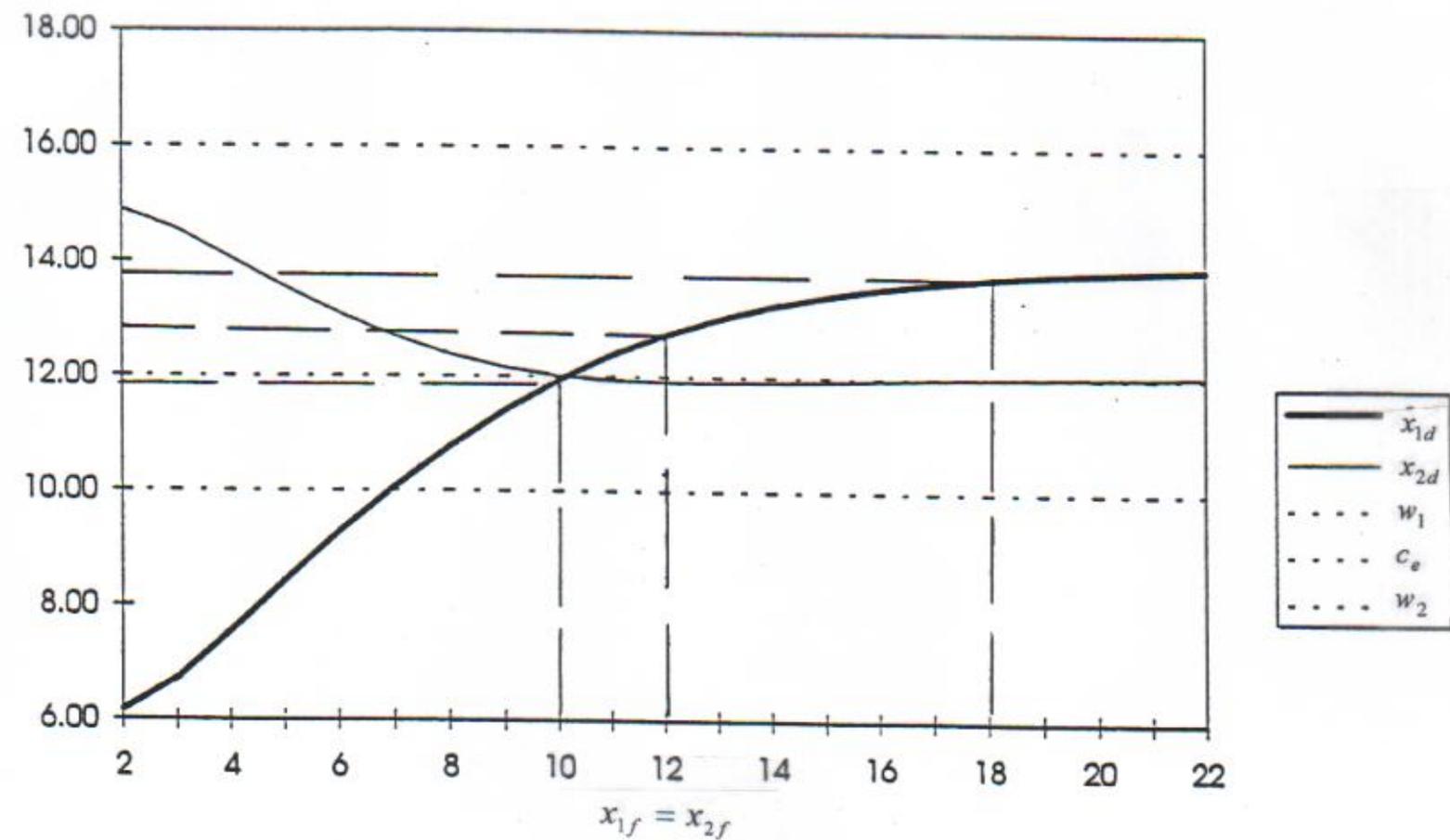
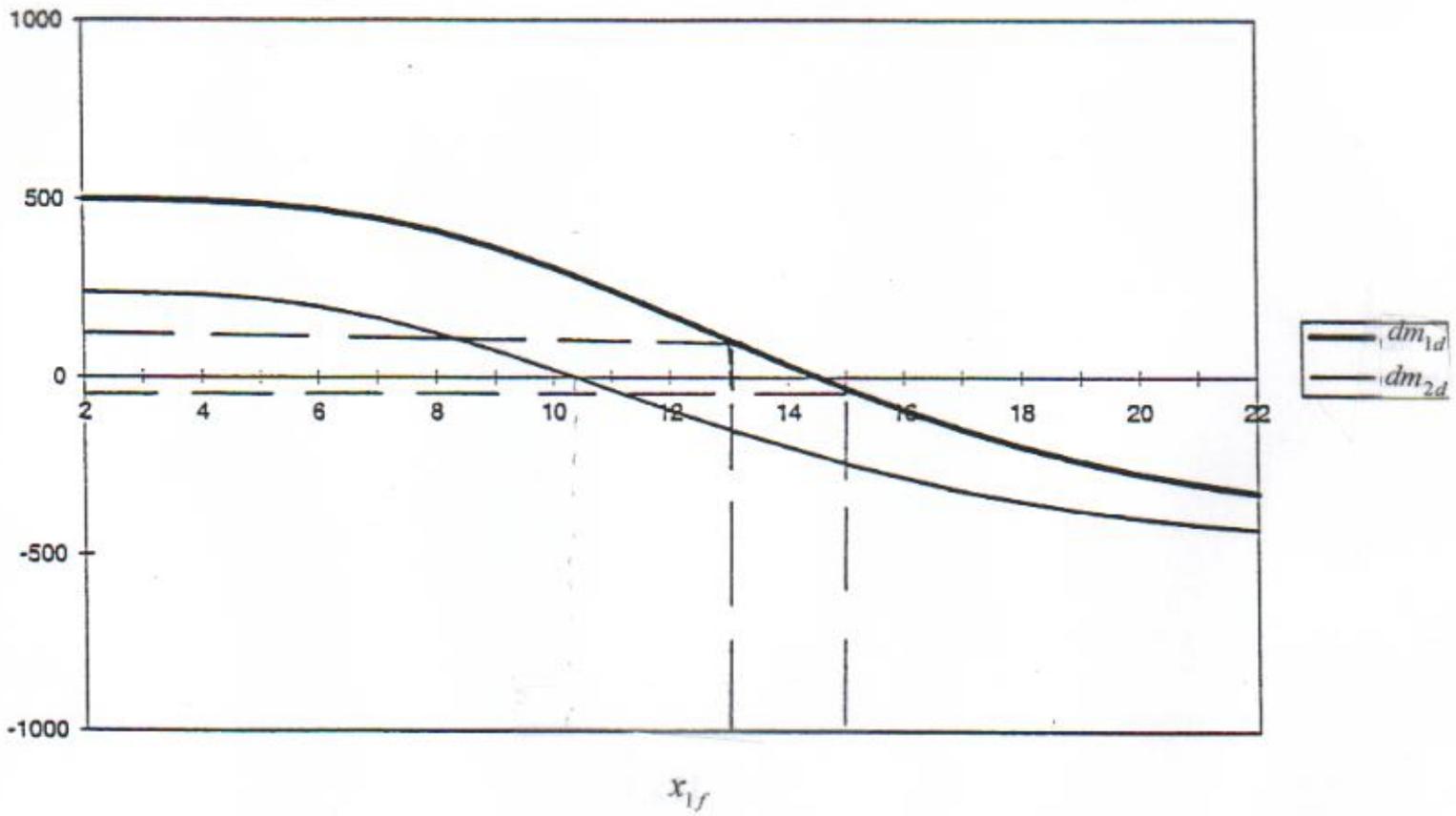


Figure 3.1 (a) The effect of  $x_{1f}$  on  $dm_{1d}$  and  $dm_{2d}$ , Case B



(b) The effect of  $x_{1f}$  on  $x_{1d}$  and  $x_{2d}$ , Case B

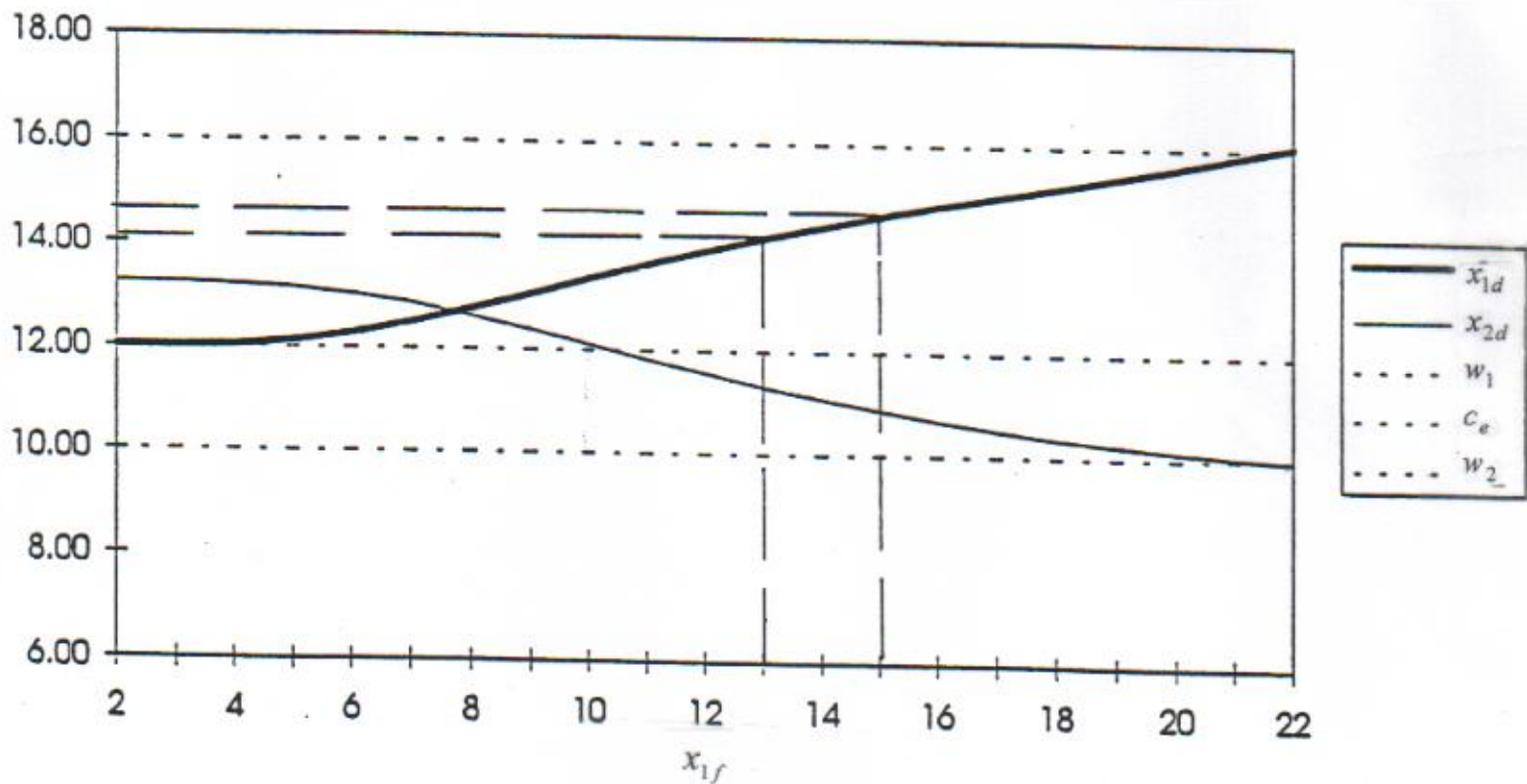
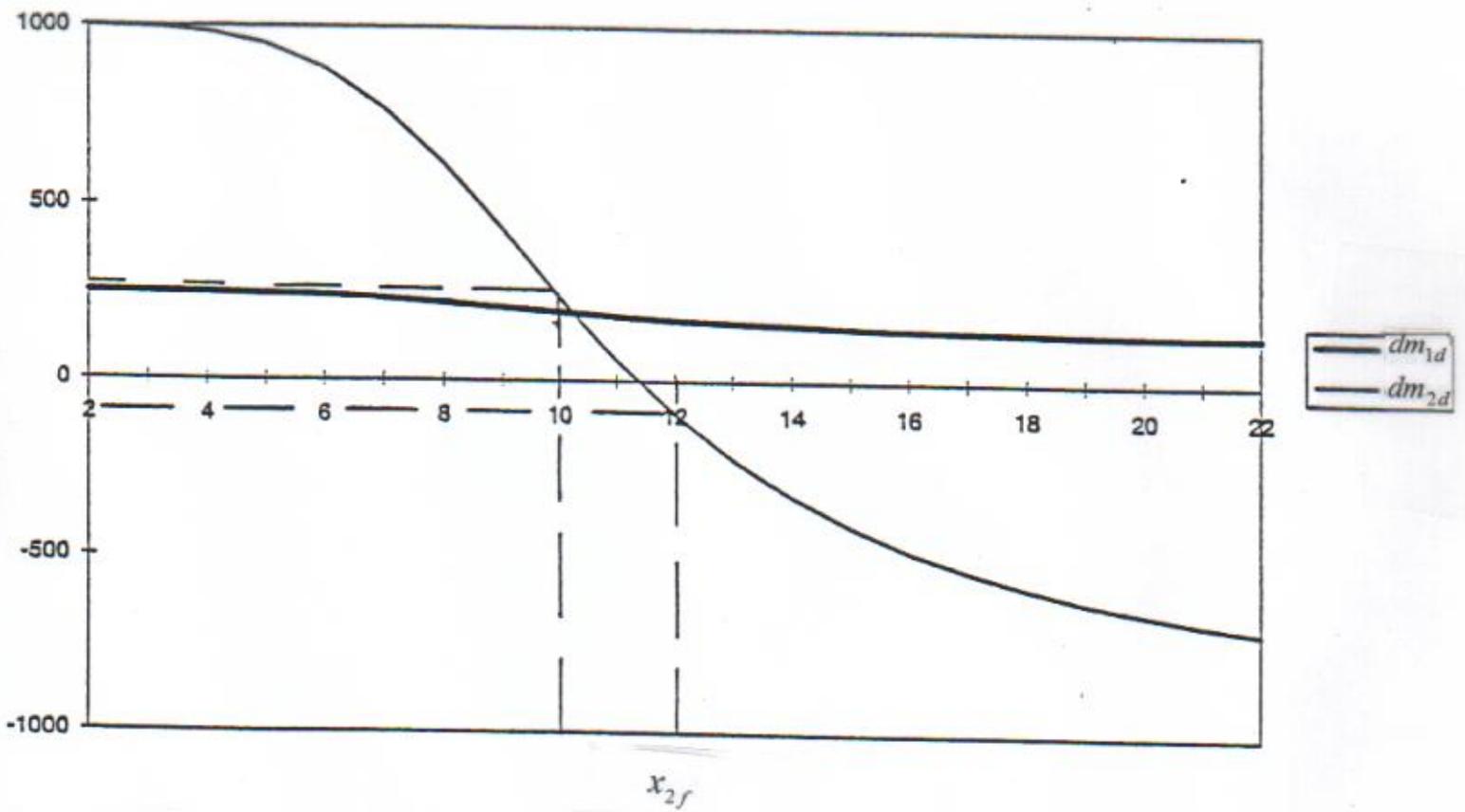


Figure 3.2 (a) The effect of  $x_{2f}$  on  $dm_{1d}$  and  $dm_{2d}$ , Case B



(b) The effect of  $x_{2f}$  on  $x_{1d}$  and  $x_{2d}$ , Case B

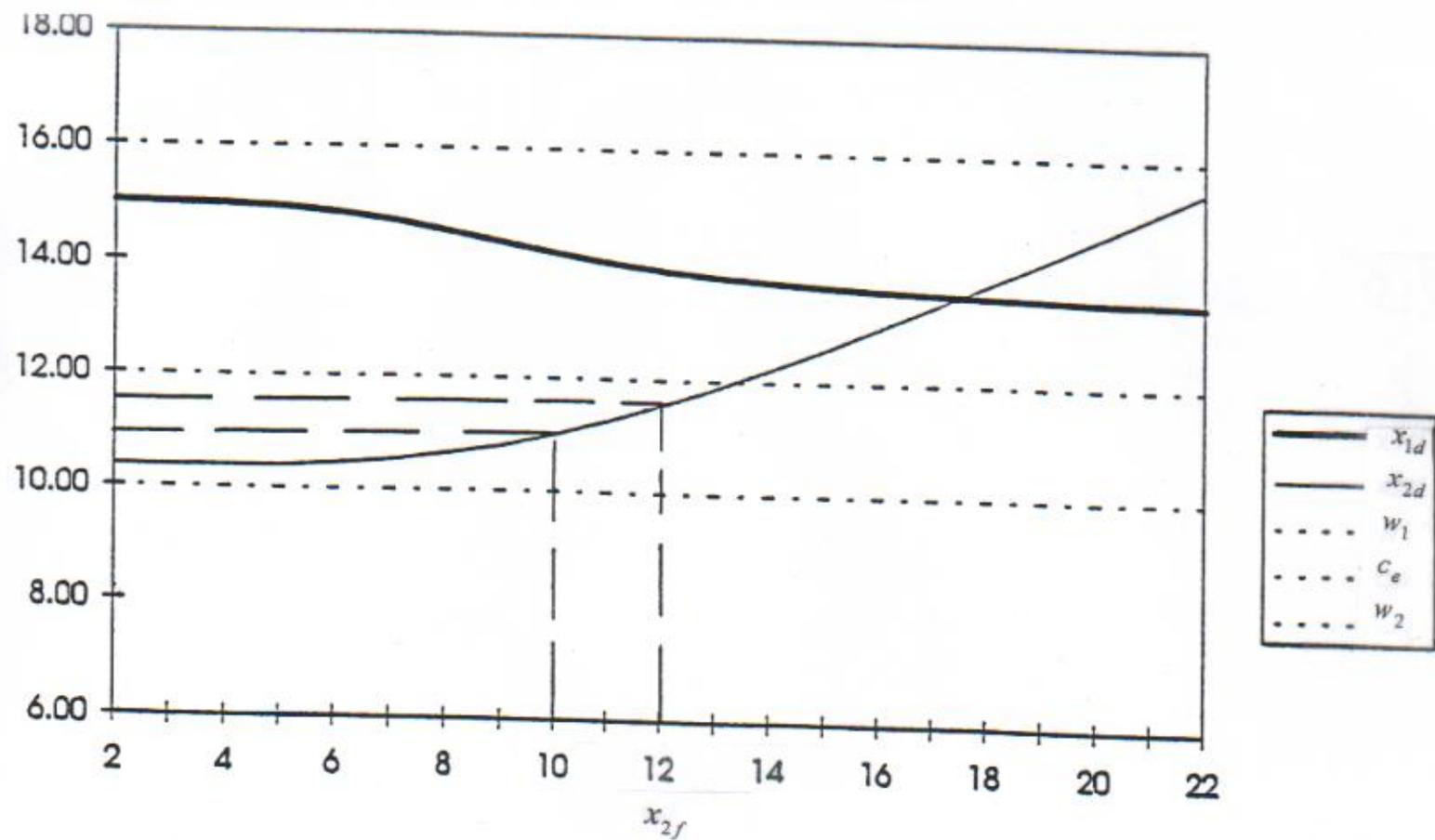
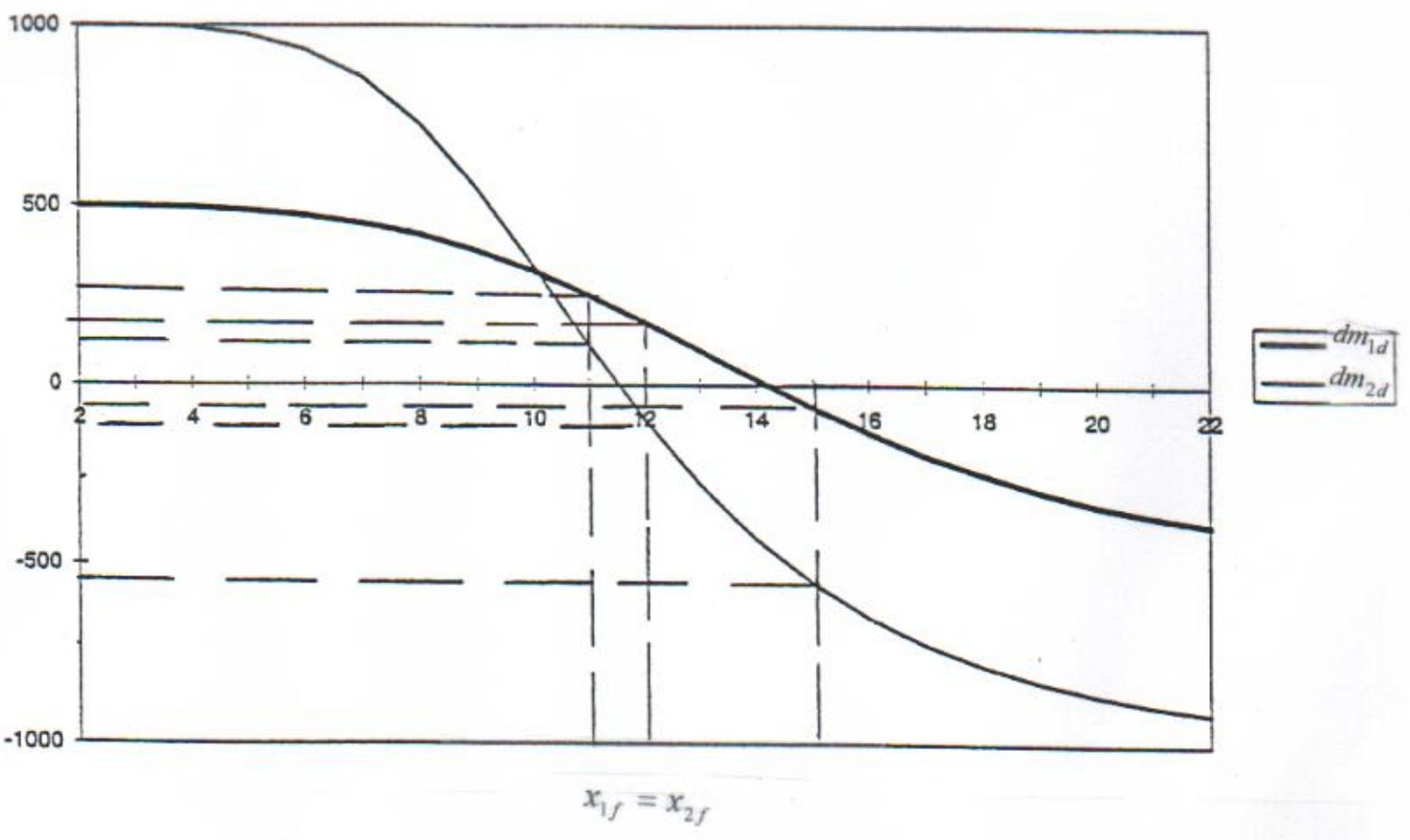


Figure 3.3 (a) The effect of  $x_{1f} = x_{2f}$  on  $dm_{1d}$  and  $dm_{2d}$ , Case B



(b) The effect of  $x_{1f} = x_{2f}$  on  $x_{1d}$  and  $x_{2d}$ , Case B

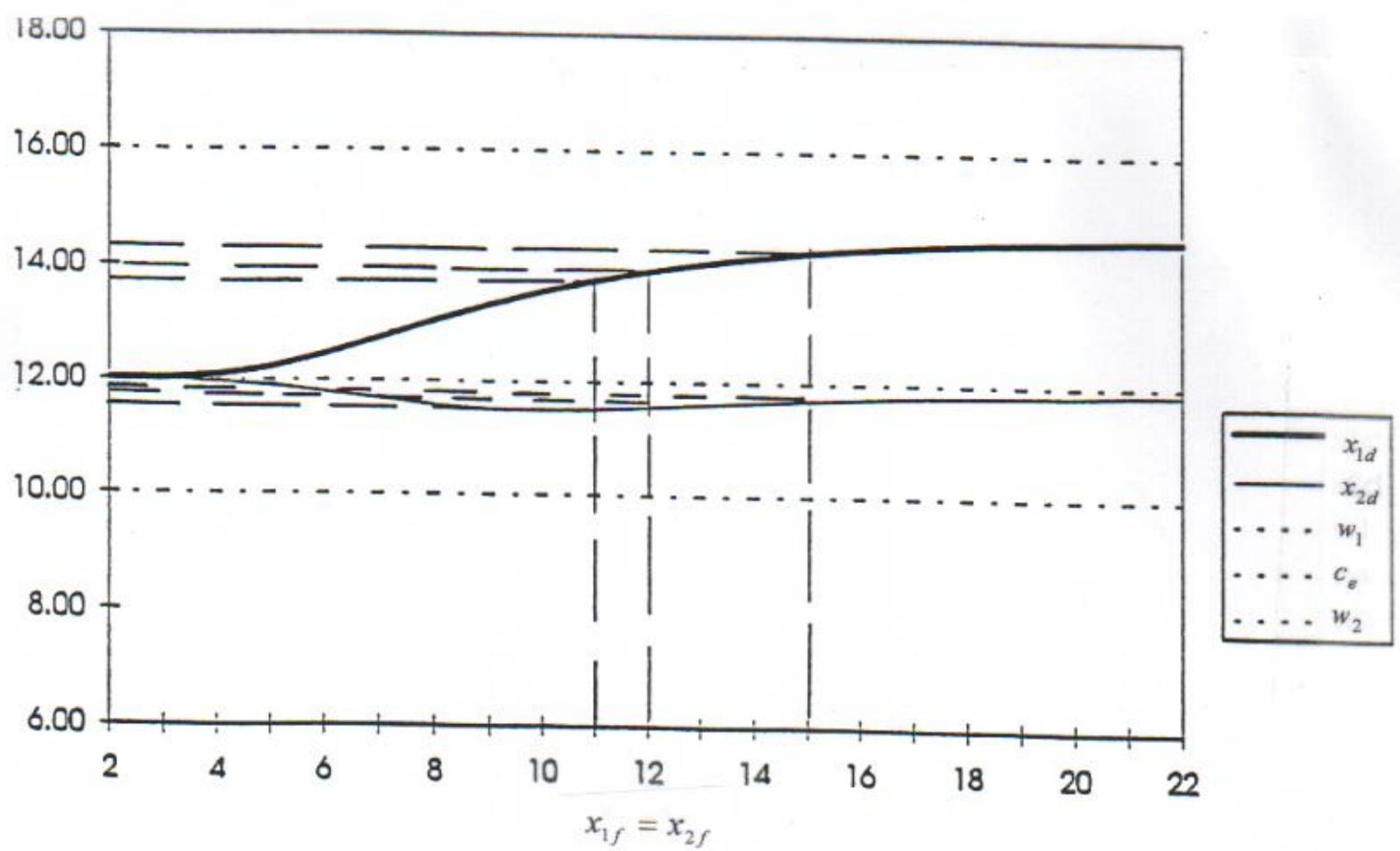
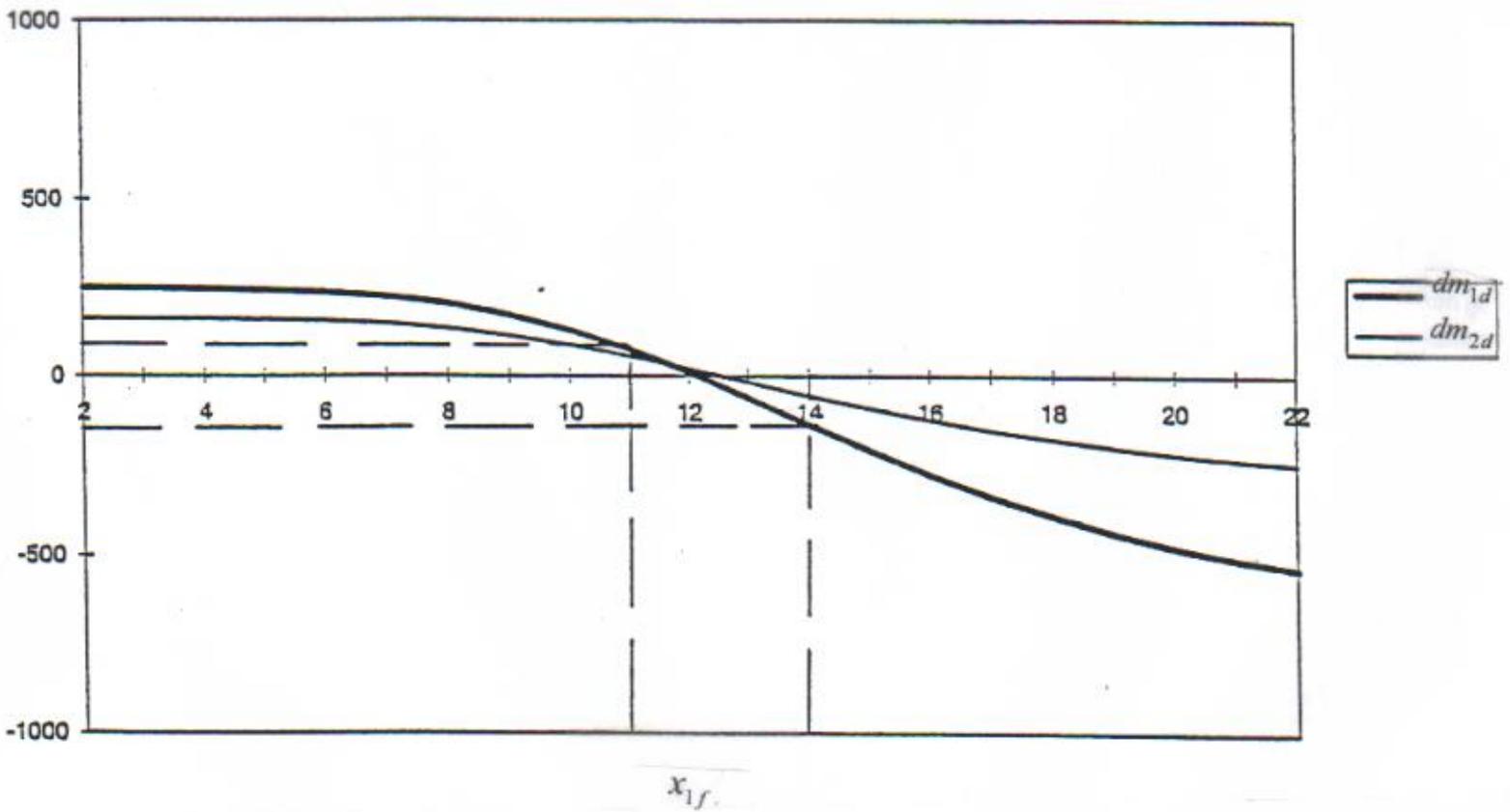


Figure 4.1 (a) The effect of  $x_{1f}$  on  $dm_{1d}$  and  $dm_{2d}$ , Case C



(b) The effect of  $x_{1f}$  on  $x_{1d}$  and  $x_{2d}$ , Case C

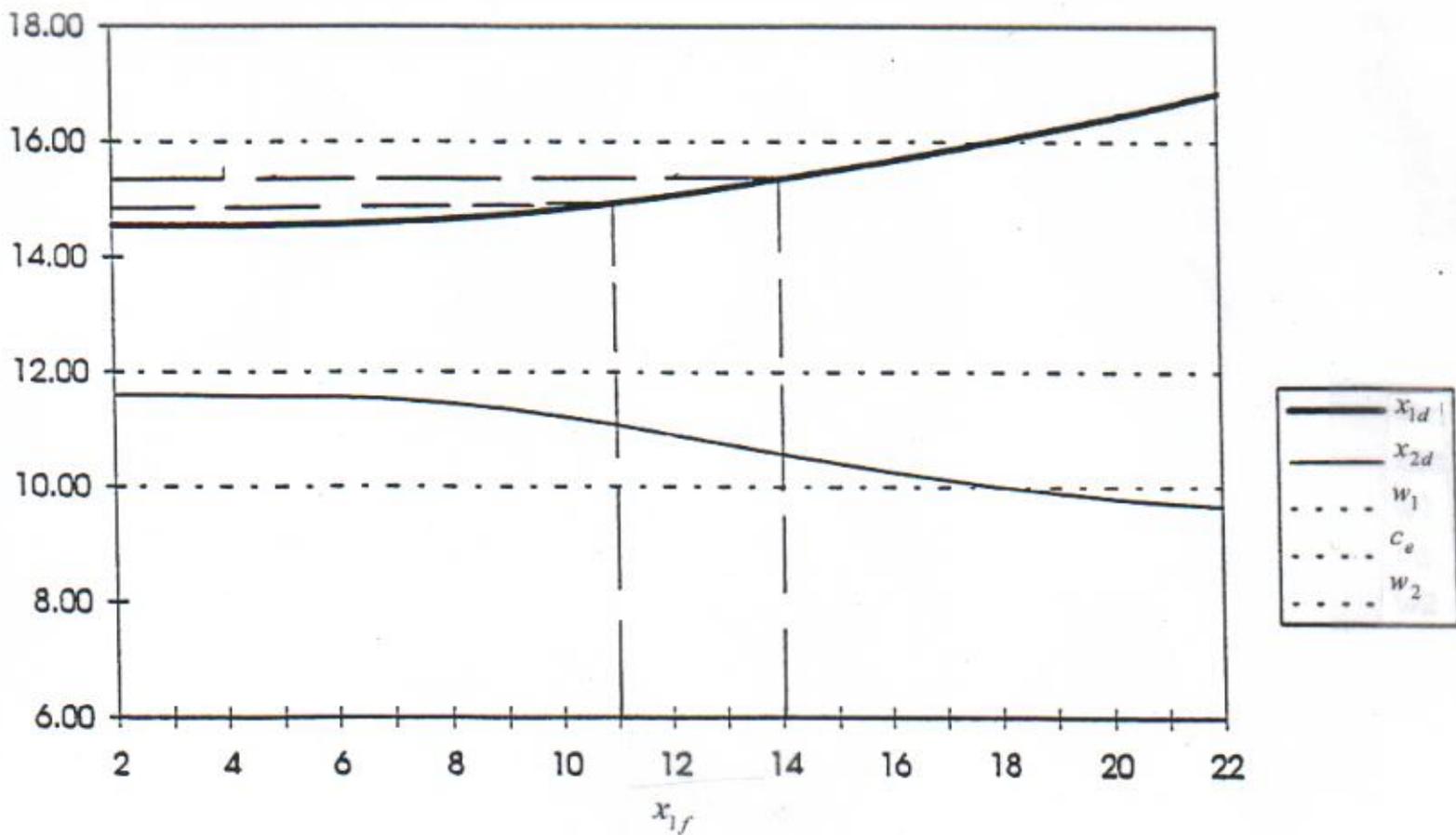
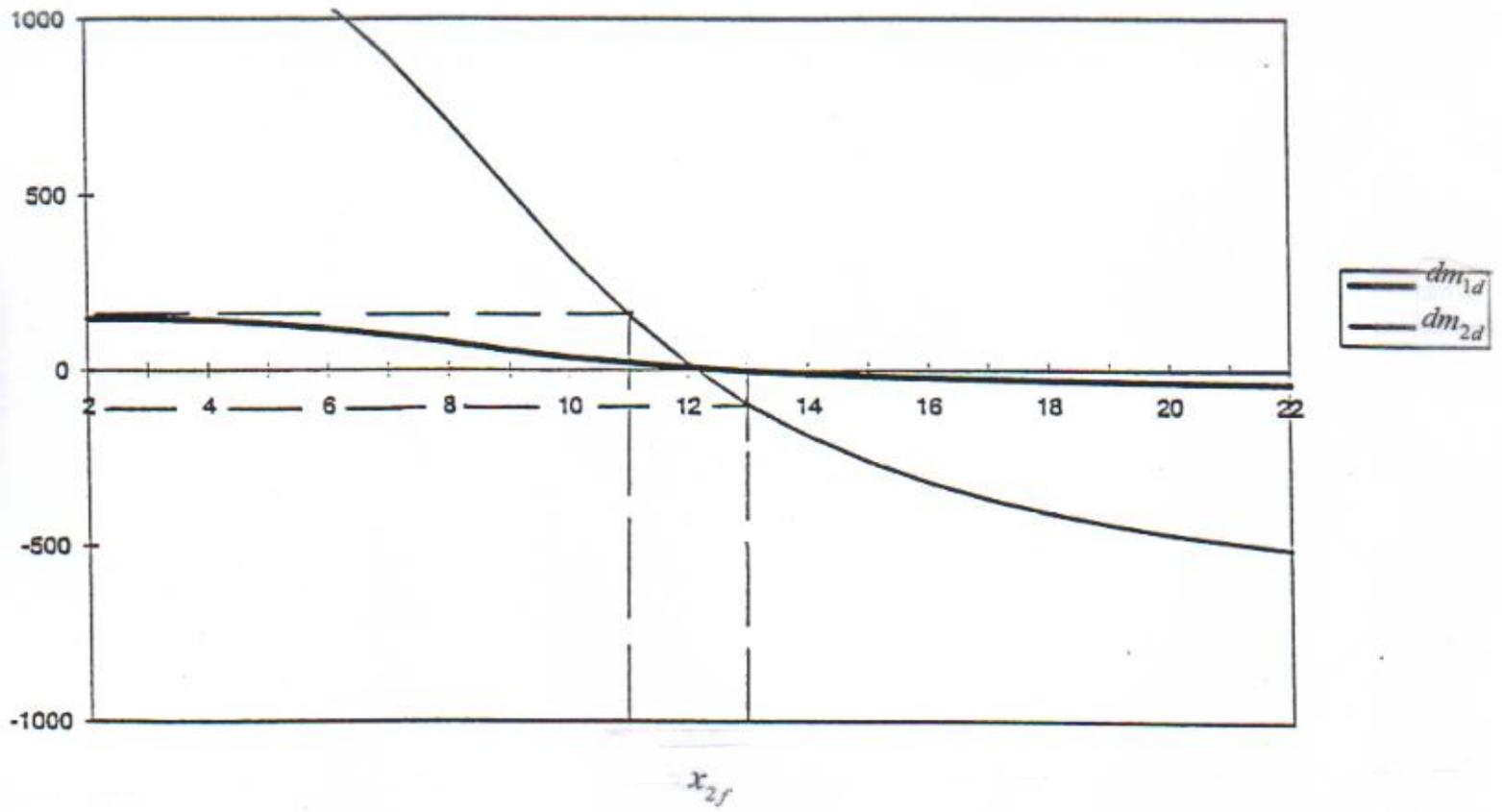


Figure 4.2 (a) The effect of  $x_{2f}$  on  $dm_{1d}$  and  $dm_{2d}$ , Case C



(b) The effect of  $x_{2f}$  on  $x_{1d}$  and  $x_{2d}$ , Case C

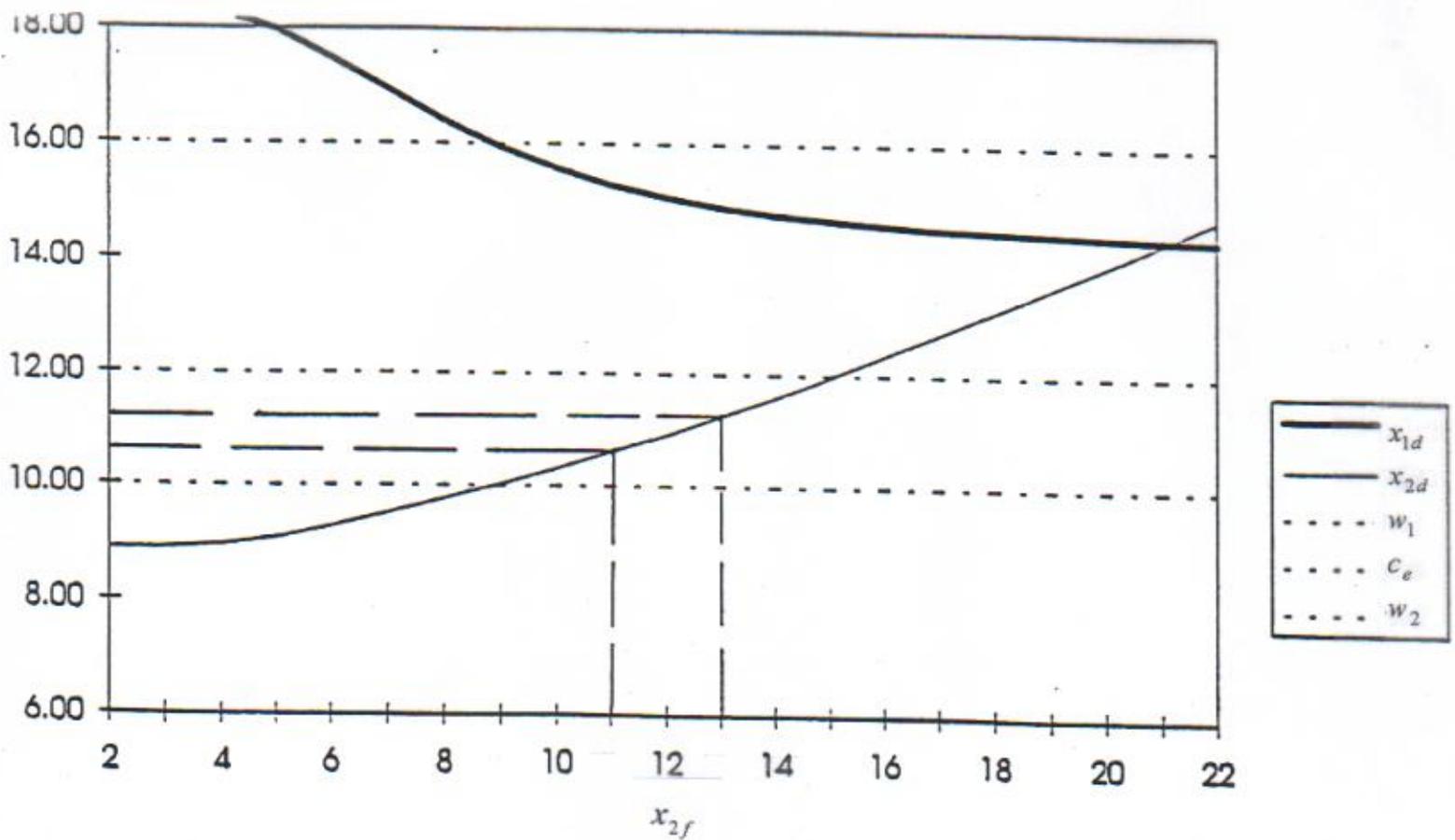
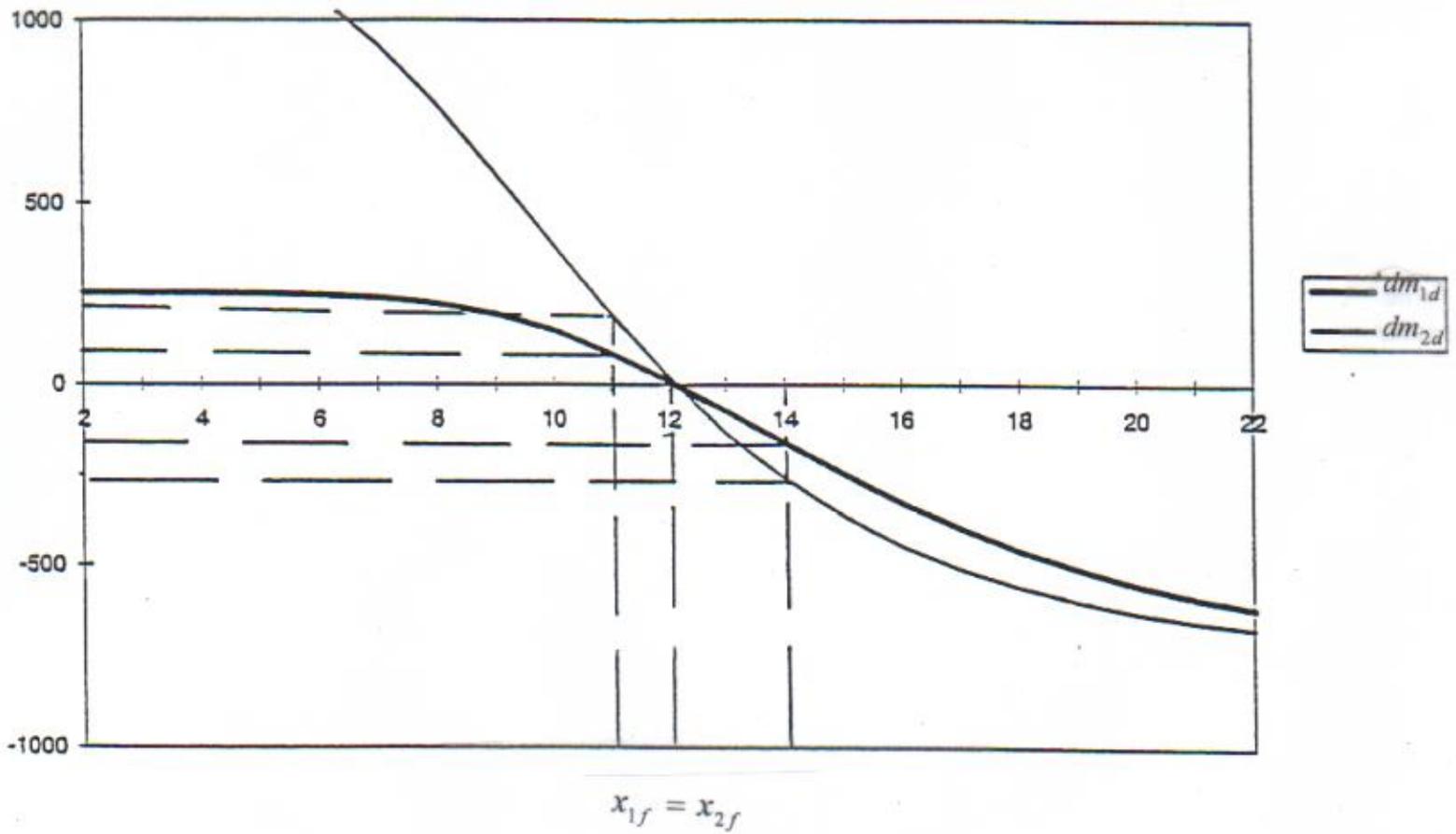


Figure 4.3 (a) The effect of  $x_{1f} = x_{2f}$  on  $dm_{1d}$  and  $dm_{2d}$ , Case C



(b) The effect of  $x_{1f} = x_{2f}$  on  $x_{1d}$  and  $x_{2d}$ , Case C

