Economics of Globalization

The Effects of Factor Movements

Migration

Facts About Migration

1. In 2019, the number of international migrants worldwide has reached nearly 272 million, up from 221 million in 2010

Europe hosted the largest number of international migrants (82 million), followed by Northern America (59 million) and Northern Africa and Western Asia (49 million). The regional distribution of international migrants is changing, with migrant populations growing faster in Northern Africa and Western Asia and in sub-Saharan Africa than in other regions.[1]

2. The global number of international migrants has grown faster than the world's population

Consequently, the share of international migrants in the total population has increased from 2.8 per cent in the year 2000 to 3.5 per cent in 2019. The share of international migrants in the total population varied considerably across regions, with Oceania (21 per cent), including Australia and New Zealand, and Northern America (16 per cent) recording the highest proportions.

3. Forced displacements across international borders have continued to rise

The global number of refugees and asylum seekers increased by about 13 million between 2010 and 2017, accounting for close to a quarter of the increase in the number of all international migrants.[2] Northern Africa and Western Asia hosted around 46 percent of the global number of refugees and asylum seekers, followed by sub-Saharan Africa (close to 21 per cent).

4. Most of the world's migrants live in a relatively small number of countries

In 2019, two thirds of all international migrants were living in just 20 countries. The largest number of international migrants (51 million) resided in the United States of America, equal to about 19 per cent of the world's total. Germany and Saudi Arabia hosted the second and third largest numbers of migrants worldwide (around 13 million each), followed by the Russian Federation (12 million) and the United Kingdom (10 million).

5. Over two fifths of all international migrants worldwide in 2019 had been born in Europe (61 million) or in Central and Southern Asia (50 million)

Latin America and the Caribbean was the region of origin of an additional 40 million international migrants, and another 37 million originated in Eastern and South-Eastern Asia.

6. Most international migrants move between countries located within the same region

The majority of international migrants in sub-Saharan Africa (89 per cent), Eastern and South-Eastern Asia (83 per cent), Latin America and the Caribbean (73 per cent), and Central and Southern Asia (63 per cent) originated from another country in the same region where they resided. By contrast, most of the international migrants that lived in Northern America (98 per cent), Oceania (88 per cent) and Northern Africa and Western Asia (59 per cent) were born in a region other than the one in which they were residing.

7. One-third of all international migrants originate in only ten countries

In 2019, India was the leading country of origin of international migrants, with 17.5 million persons living abroad. Migrants from Mexico constituted the second largest "diaspora" (11.8 million), followed by China (10.7 million), the Russian Federation (10.5 million) and the Syrian Arab Republic (8.2 million).

8. In 2019, women comprise slightly less than half of all international migrants

The share of women in the total number of international migrants fell from 49.3 per cent in 2000 to 47.9 per cent in 2019. The share of migrant women was highest in Northern America (51.8 per cent) and Europe (51.4 per cent), and lowest in sub-Saharan Africa (47.5 per cent), and Northern Africa and Western Asia (35.5 per cent).

9. One out of every seven international migrants are below the age of 20 years

In 2019, 38 million international migrants, equivalent to 14 per cent of global migrant population, were under 20 years of age. Sub-Saharan Africa hosted the highest proportion of young persons among all international migrants (27 per cent), followed by Latin America and the Caribbean, and Northern Africa and Western Asia (about 22 per cent each).

10. Three out of every four international migrants are of working age (20-64 years)

In 2019, 202 million international migrants, equivalent to 74 per cent of the global migrant population, were between the ages of 20 and 64. More than three quarters of international migrants were of working age in Eastern and South-Eastern Asia, Europe and Northern America.

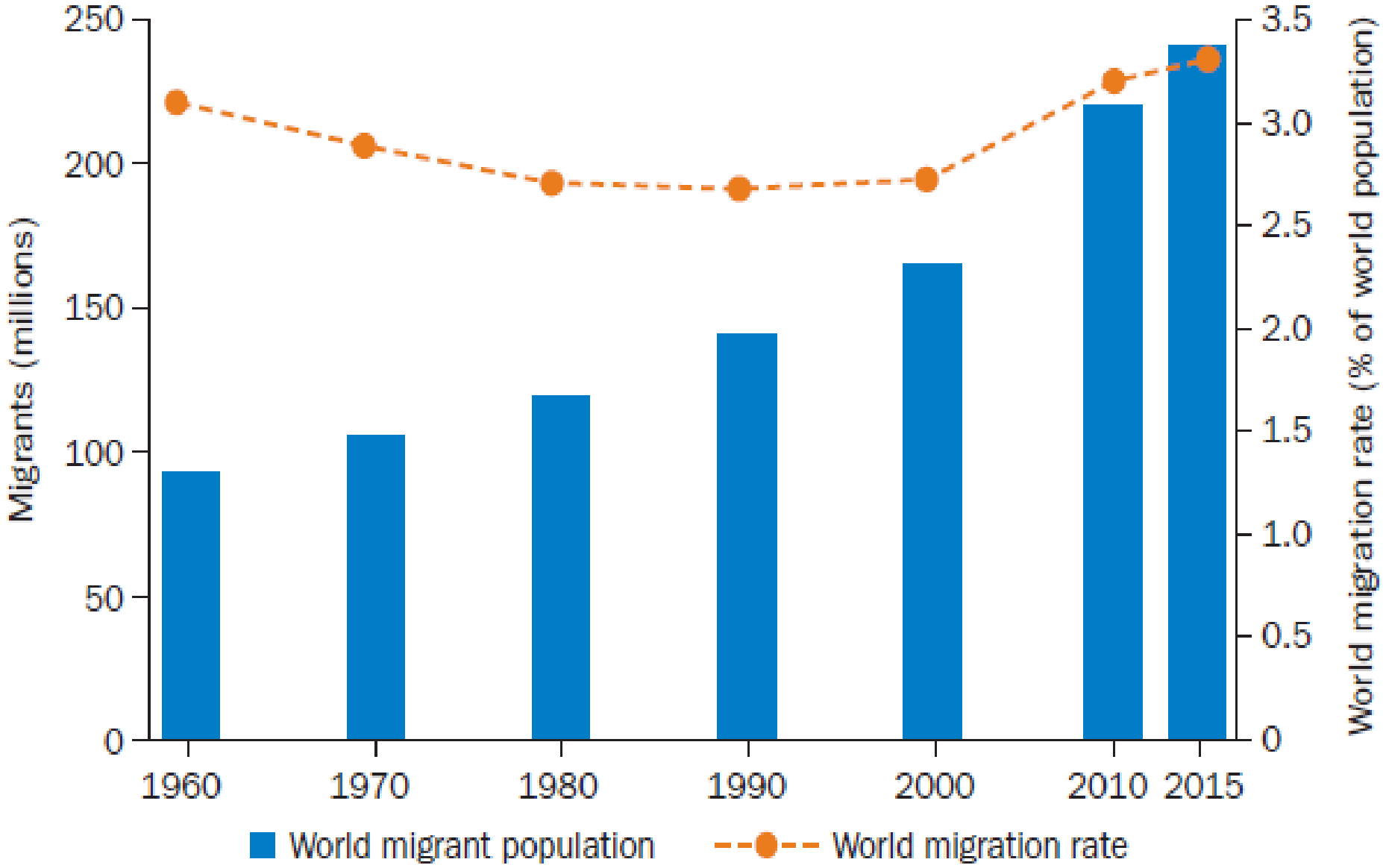
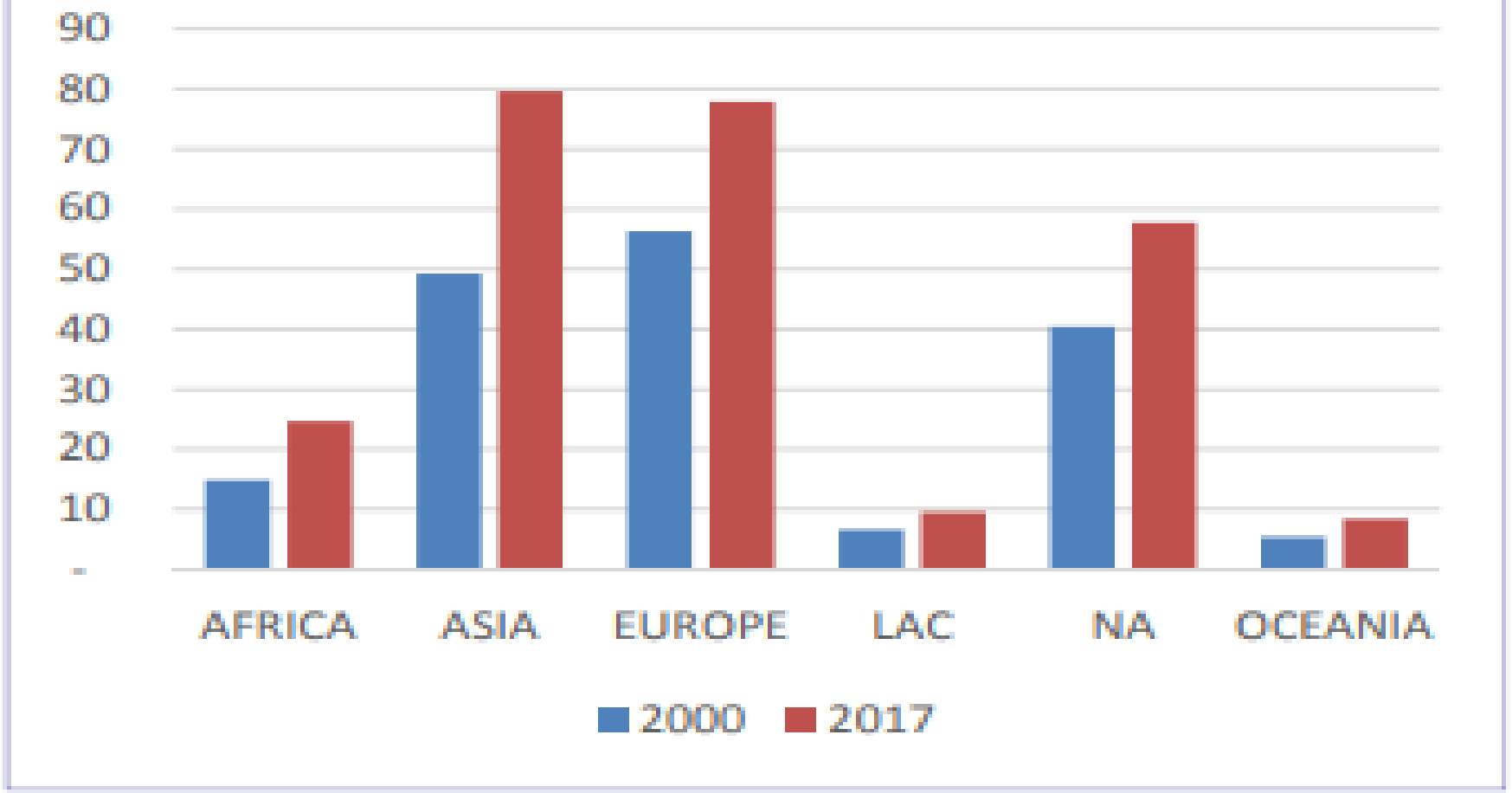

Migrants (millions)
250
200
150
100
50
0
1960
1970
1980
1990
2000
2010
2015
World migration rate (% of world population)
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
World migrant population
World migration rate

Figure 1: Number of international migrants by region of destination, 2000 and 2017 (millions)



Note: NA = Northern America; LAC = Latin America and the Caribbean

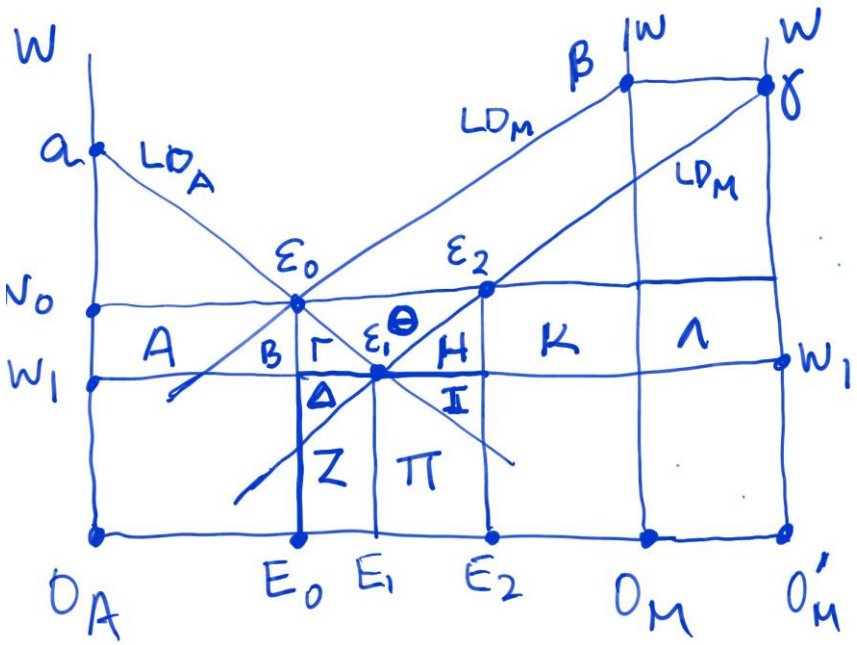
Top Corridors with Highest Share of Skilled Migrants (2010)

Origin	Destination	Stock skilled	Total stock	Share skilled (%)
Russian Federation	Canada	47,680	59,625	80.0
India	United States	1,198,916	1,533,387	78.2
Taiwan, China	United States	264,379	341,861	77.3
Taiwan, China	Canada	41,165	53,520	76.9
Korea, Rep.	Canada	71,005	95,620	74.3
United States	United Kingdom	99,068	133,916	74.0
Romania	Canada	51,105	70,065	72.9
Iran, Islamic Rep.	Canada	76,360	105,560	72.3
Nigeria	United States	123,094	172,549	71.3
Philippines	Canada	291,220	409,000	71.2

1. Migration: Full Employment in the Domestic Economy
The Specific Factors Model

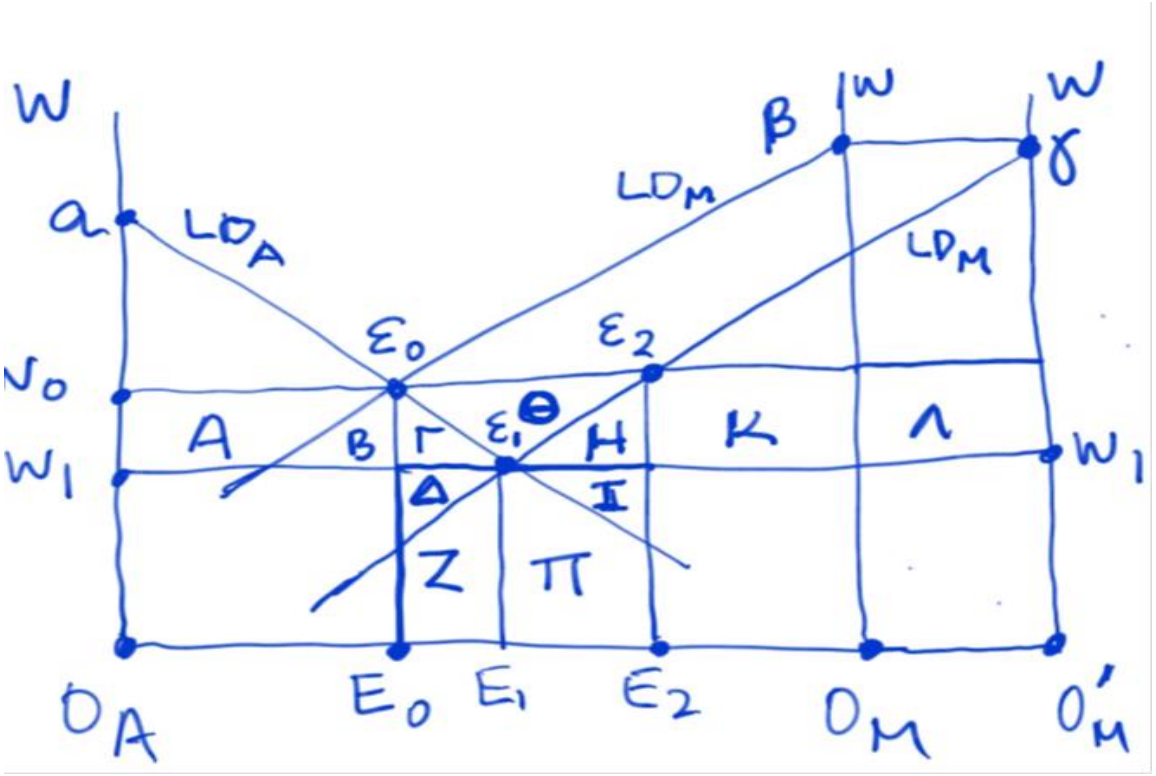
- Assume that wages in the domestic economy are flexible and adjust to changes in labour supply so that full employment prevails.
- Labour is the mobile factor (i.e. used in the production of both goods), whereas capital and land are the Specific Factors.
- Immigrants are identical to domestic residents regarding their labour market skills.
- The domestic economy remains small after the influx of migrants and the relative price of goods (P_A/P_M) is not affected.

Diagram shows the effects of an influx of migrants. Initially, labour supply is **L** , and it is equal to the length of the horizontal axis $O_A O_M$. Equilibrium is at point ε_0, with $0_A E_O = L_A$ and $E_0 O_M$=L_M, while the wage is w_o. Then there is influx of M migrants, which adds to the labour supply, so that now labour supply is equal to L+M=$O_A\ O'_M$=βγ=E_0E_2. The new equilibrium is at point ε_1, and the new wage is lower, and equal to w_1. Note that employment increases in both sectors, by E_0E_1 in the A sector, and by E_2E_1 in the M sector. As a result, the income of domestic workers declines, while the income of both capitalists and landowners increases.



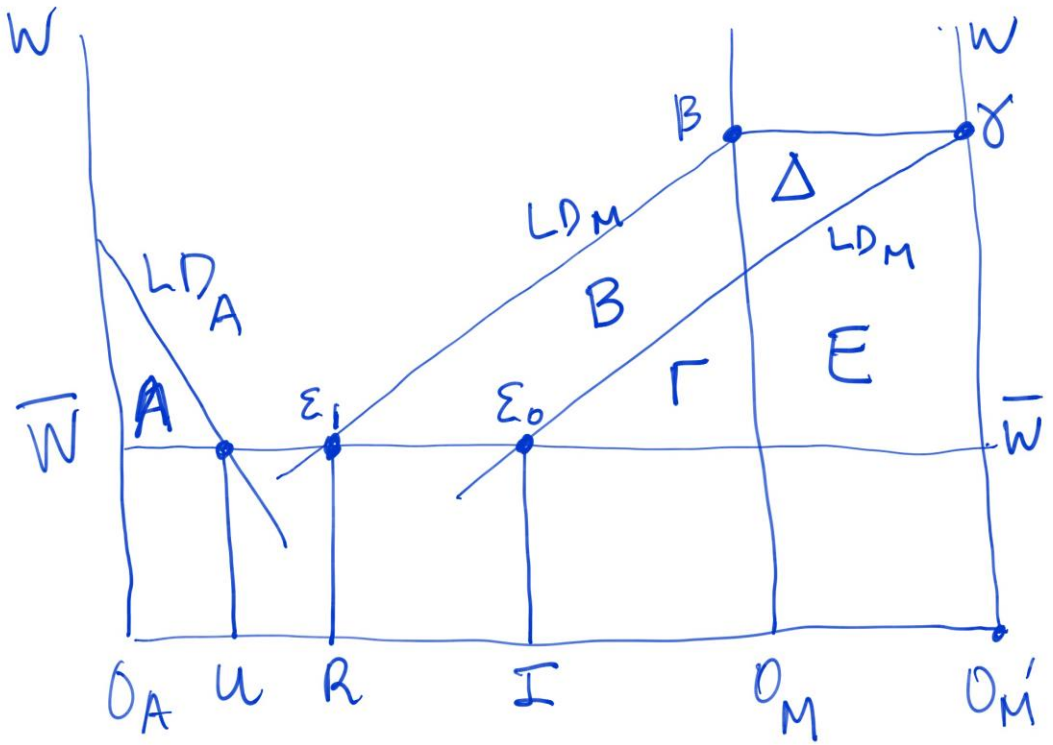
The total income lost by domestic workers is equal to the sum of areas **A+B+K+Λ**, while the total income gain of landowners is **A+B+** Γ, and of the capitalists is **H+K+Λ**. As a result total income of domestic citizens increases by areas **Γ+H**. This is the ***immigration surplus*** that the domestic country derives from the influx of the immigrants.

Another way to understand the existence of the immigration surplus is to note that the E_0E_2 immigrants increase the value of production in the A sector by (the sum of areas) **Ζ+Δ+Γ** , whereas they increase production in the M sector by **Π+Σ+Η**. However, the income of the immigrants is equal to **Ζ+Δ+Π+Ι** , therefore the immigrants contribute to total production by more than their total wage income by the amount **Γ+Η**.



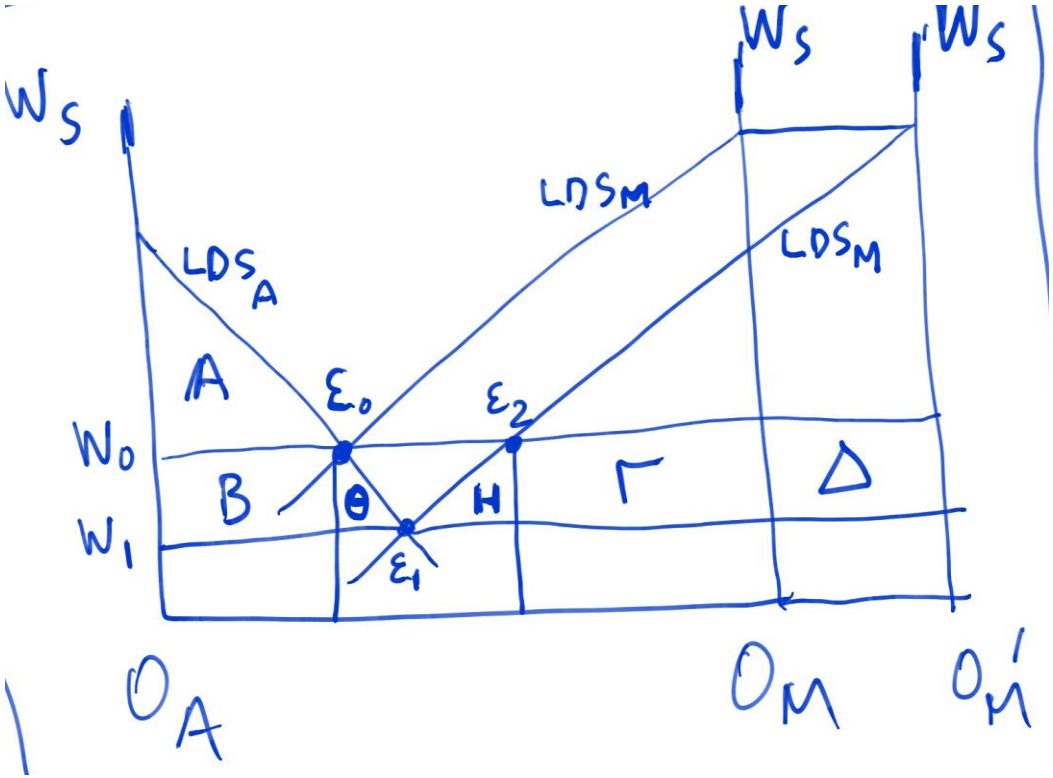
2. Migration with Unemployment

Wages are now fixed above their market-clearing level, and there is unemployment, equal to **UR**. As before, Then there is influx of M migrants so that now labour supply is equal to L+M=$O_A O'_M$=$\beta\gamma$=$\varepsilon_0\varepsilon_1$. As a result, unemployment increases by an amount equal to the number of immigrants, and becomes equal to **UI.** Total income of (domestic plus immigrant) workers remains the same, but some of previously employed workers may lose their jobs. The income of landowners (**A)** and capitalists (**B+Γ=Γ+E**) remains the same, since neither employment nor wages change. In these circumstances there will be limited support for immigration.



3. Migration of Skilled Workers

Assume now that skilled labour (S) is the mobile factor (i.e. it is used in the production of both goods), whereas unskilled workers (L) are used in producing only A, and capital (K) only for producing M ; L and K are the Specific Factors. The diagram portrays this case, and now the length of the horizontal axis measures the number of skilled workers before (= $O_A O_M$), and after the influx of skilled workers (=$O_A\ O'_M$).



As a result, the wage of skilled workers falls, from $w_0\ to\ w_1$, and the income of unskilled workers rises from area **A** to area **A+B+Θ.** **(**Note: if unskilled workers co-operate with skilled workers in producing the A good whose price is fixed in international markets, and skilled workers receive less, there is more left for unskilled workers.) Capitalists also gain (areas **H+Γ+Δ**). There is again an immigration surplus equal to **Θ+H**.

International Outsourcing (Offshoring)

Outsourcing is the strategic use of outside resources to perform activities traditionally handled by internal staff and resources.

International outsourcing (i.e. ***Offshoring)*** is used by many developed-country firms to transfer both knowledge-based and manufacturing work to third-party firms abroad in order to benefit from lower wages and operating costs.

Example: "Microsoft today said it has signed a deal with Indian outsourcer Infosys Technologies Ltd. to manage key parts of worldwide internal IT operations -- and hopefully cut IT costs.

The agreement calls for Infosys to take over responsibility for managing Microsoft's IT help desk and desk-side services operations, as well as servicing the company's applications, devices and databases in more than 100 countries."

Mains reasons for outsourcing (and offshoring, when the outsourcing involves a supplier/provider based abroad)

- Reducing and controlling overall costs.
- Improving company focus
- Gaining access to world-class capabilities
- Freeing internal resources for other purposes
- Streamlining or increasing efficiency for time-consuming functions
- Sharing risks with a partner company
- Delegating responsibilities to external agencies of functions that are difficult to manage and control while still realizing their benefits
- Gaining access to new market areas, by taking the point of production or service delivery closer to their end users

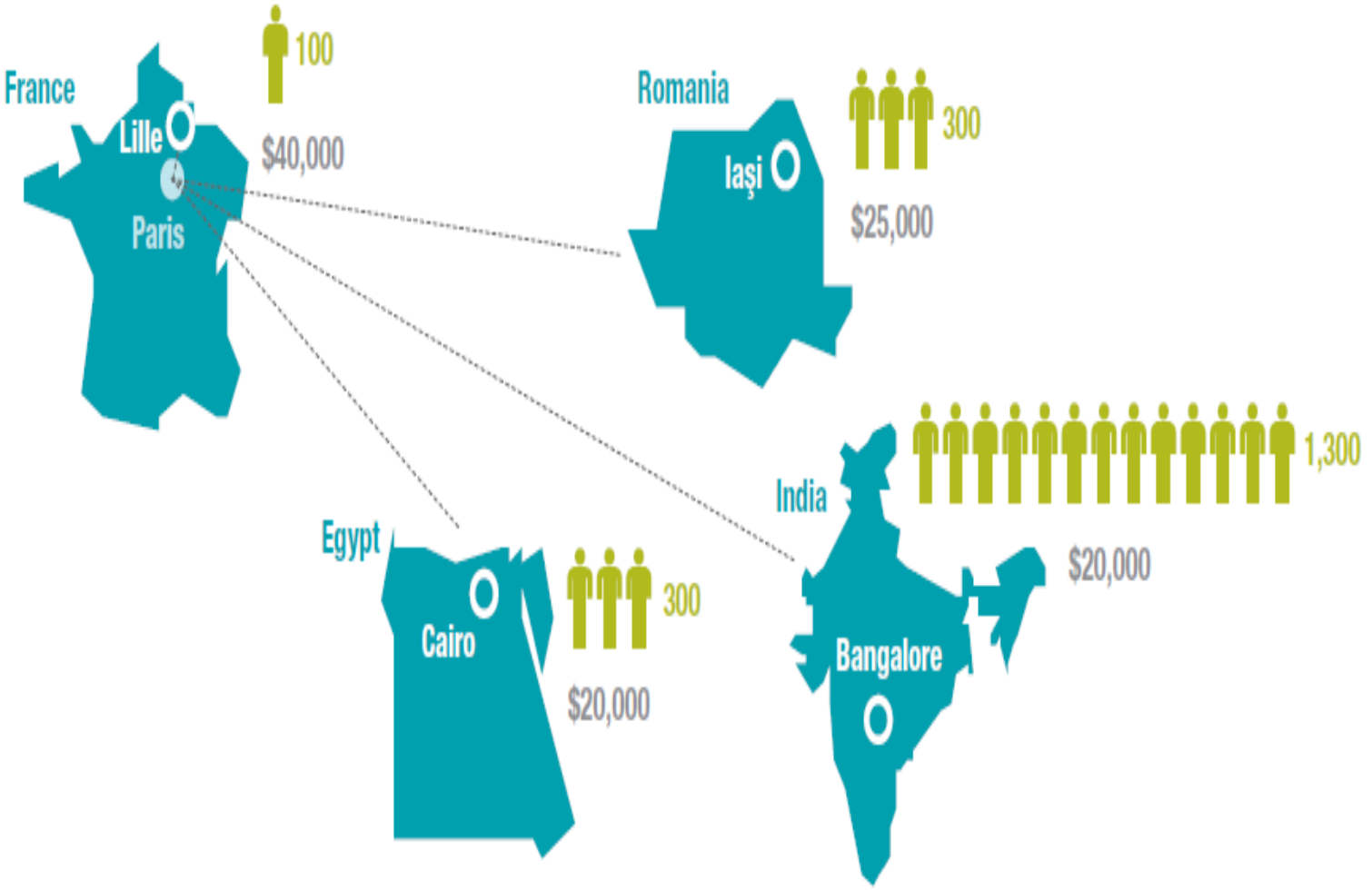
Companies usually adopt a "portfolio approach" to outsourcing..

Why diversify

One Paris-based company offshored high-end IT services across several locations, seeking to minimize exposure to geographic, currency, and labor issues.

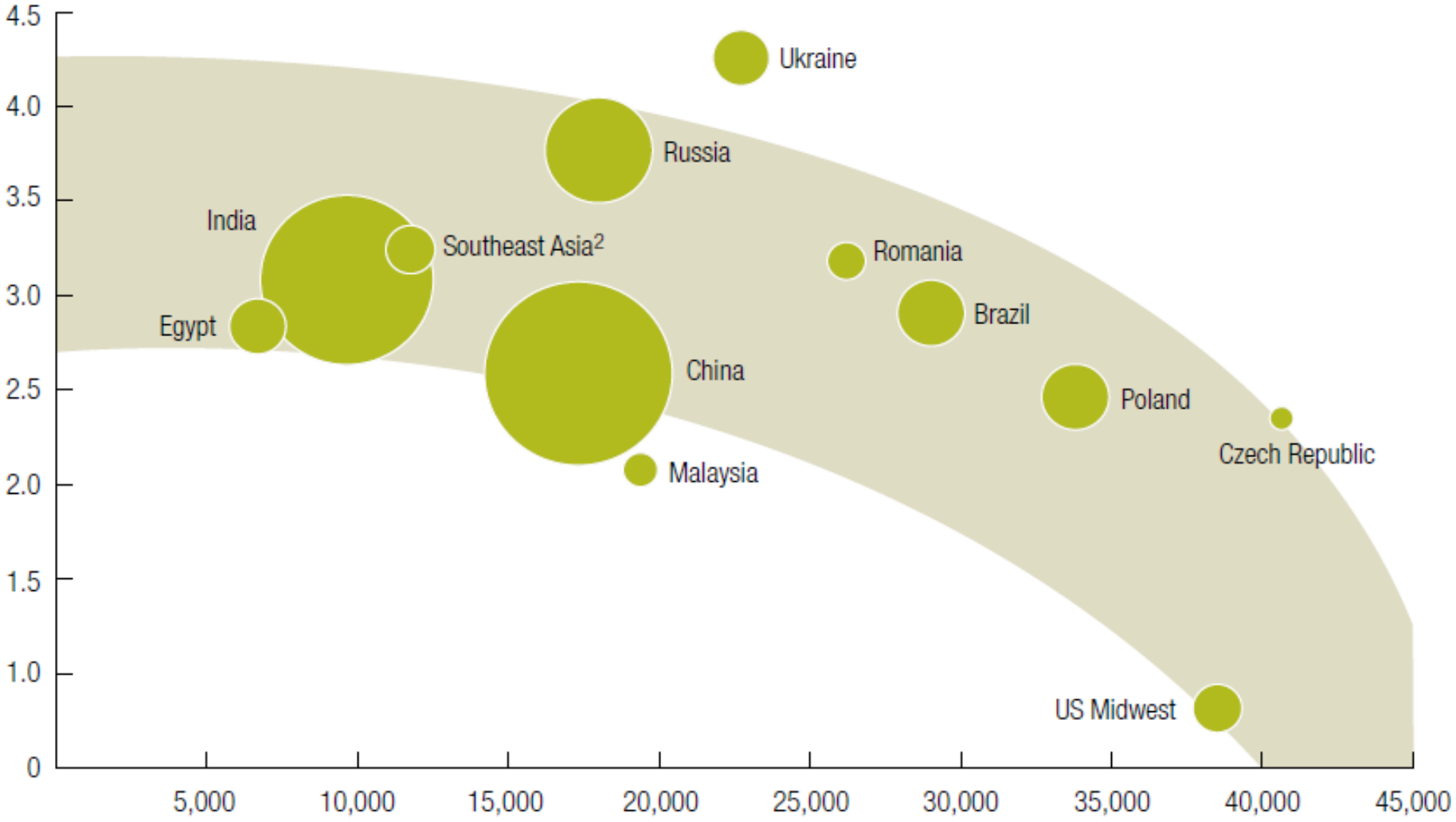
A location portfolio buffers the effects of structural volatility . . .

Potential IT services center locations, number of employees, and IT specialist annual wage[1]



. . . which decreases overall risks while still enabling significant cost savings

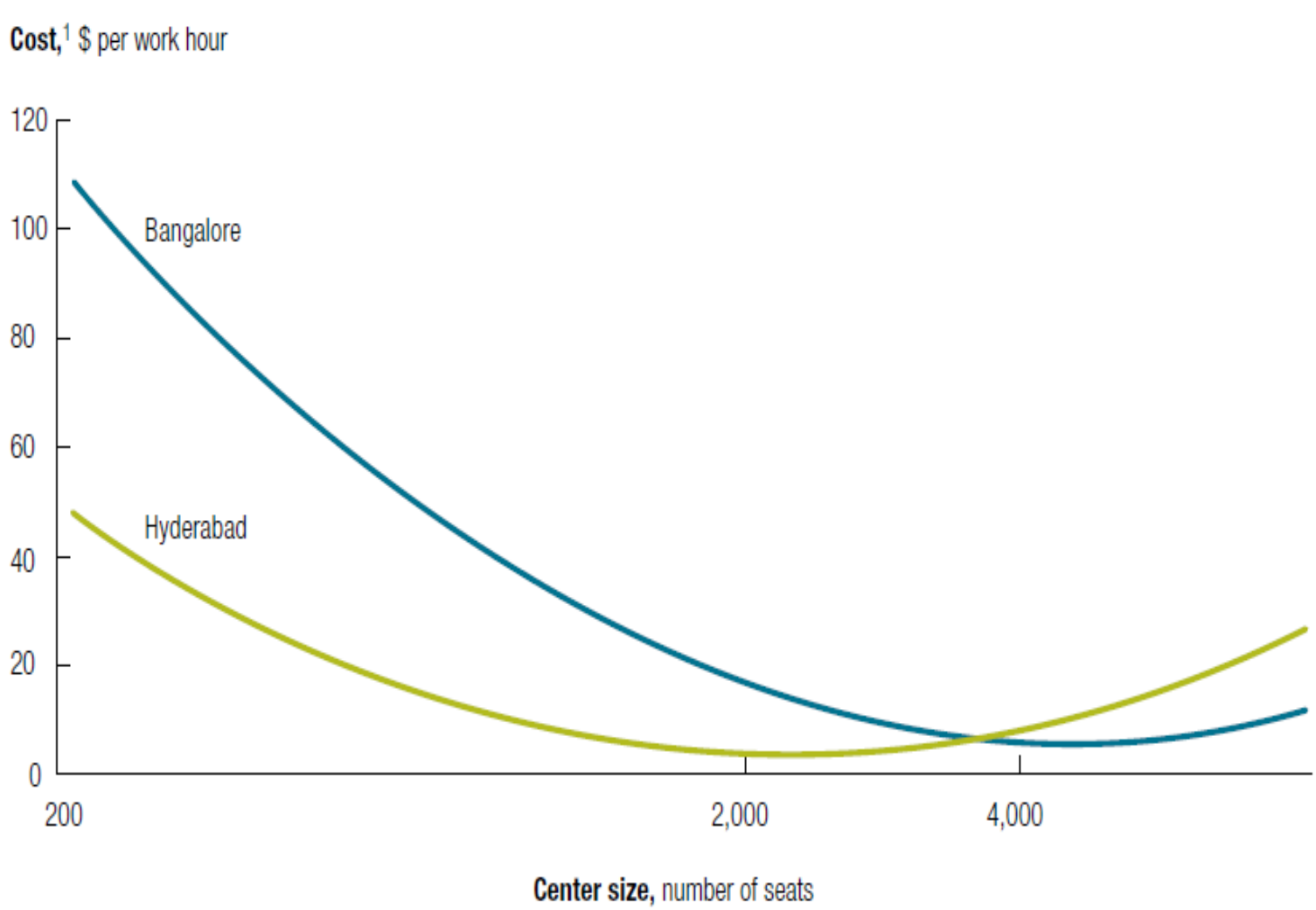
Risk rating[1] for business process offshoring (on a scale of 1 to 5, where 1 = "attractive" and 5 = "unattractive")



The tipping point

Companies must search for new locations and set up new centers proactively, before the performance of existing centers deteriorates.

Comparative costs for offshoring service centers at scale



[1]Logarithmic scale.

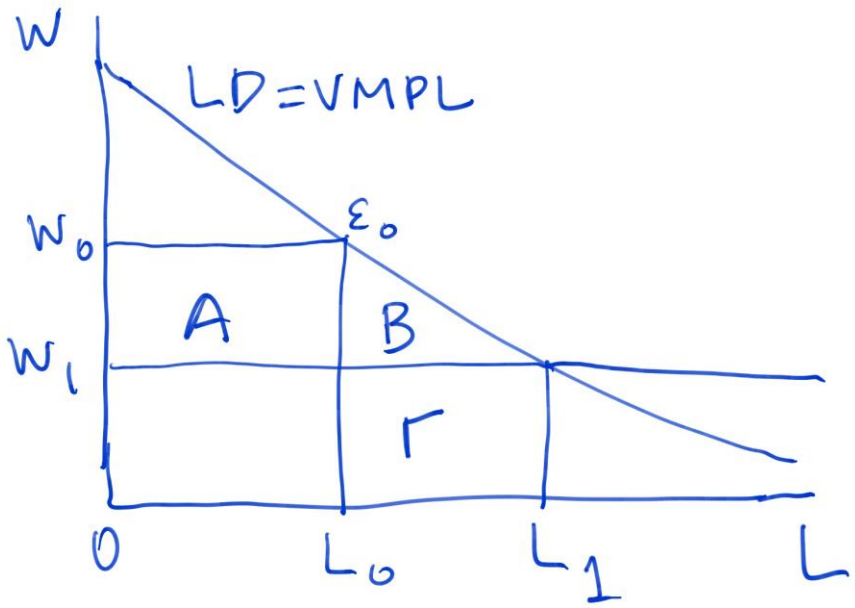
International distribution

One provider sought to create a next-generation global delivery model by allocating work dynamically.

International distribution of development and back-office work, disguised example of software and services company

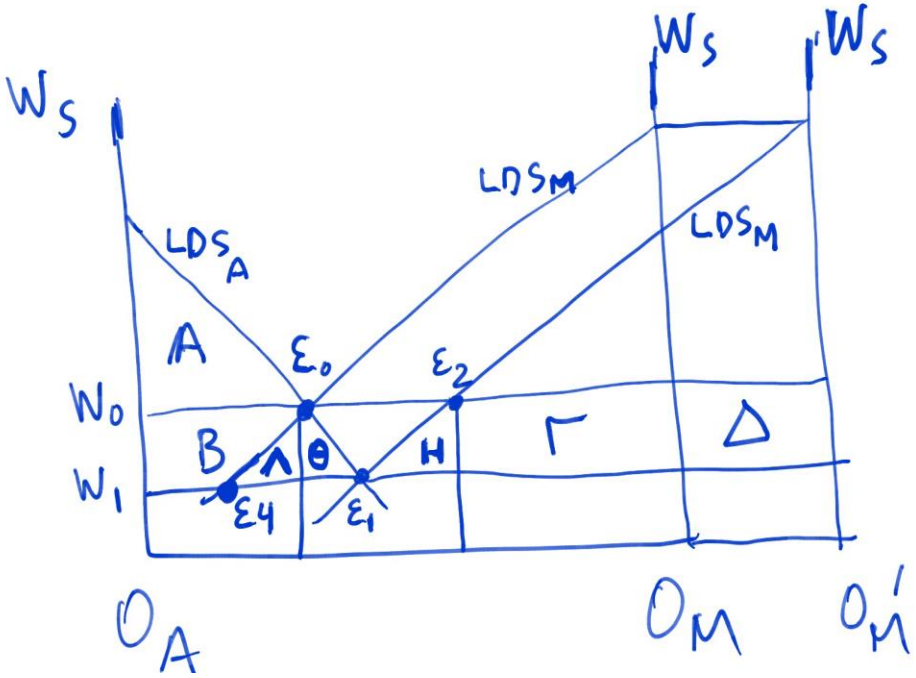
(a) Offshoring in a one-good model.

Diagram shows the effects of an innovation that allows the economy to buy the services of labour abroad electronically at the fixed wage W_1. The initial equilibrium is at point ε_0, where the domestic labour supply (OL_0) is fully employed at wage W_0. The ability to buy the services of foreign labour at wage W_1, implies that the desired employment will now be $0L_1$. All labour units (both the domestic and the L_0L_1 that are outsourced from abroad) are compensated at the wage rate W_1. Domestic workers lose area **A**, whereas domestic capitalists gain areas **A+B**.



Foreign workers contribute value equal to **B+Γ,** to domestic production, whereas they receive **Γ** in wages, so the surplus from outsourcing to the domestic economy is equal to **B.** Note that if taxation transfers some of the gains received by capitalists to domestic workers, then everybody can be made better off from outsourcing and it can receive broad political support.

(b). Offshoring in the SF model . Assume now that skilled labour (S) is the mobile factor (i.e. it s used in the production of both goods), whereas unskilled workers (L) are used in producing only A, and capital (K) only for producing M ; L and K are the Specific Factors. Suppose now that an innovation allows the country to purchase the services of skilled labour abroad at a lower wage shown by W_1. At this wage, there is excess demand for the services of skilled labour equaling $\varepsilon_1\varepsilon_4$. This demand is satisfied through outsourcing, which expands the



skilled-labour supply by $O_M O'_M$, *such that* $O_M O'_M = \varepsilon_1\varepsilon_4$. The effects are similar to the case of skilled immigration examined earlier, i.e. skilled workers lose, whereas unskilled workers and capitalists gain. The surplus from outsourcing is equal to areas **Θ+H.** Although analytically this case is similar to the case of skilled labour migartion examined earlier, it may be politically easier to deal with, as there is no presence of foreign workers (or, of their families) in the domestic country…

Foreign Direct Investment

Foreign direct investment (FDI) is a category of cross-border investment in which an investor resident in one economy establishes a lasting interest in and a significant degree of influence over an enterprise resident in another economy. Ownership of 10% or more of the voting power in an enterprise in one economy by an investor in another economy is evidence of such a relationship.

Annual Average FDI Flows, 2008-2018 (bn USD)

	Outflows	Inflows
EU	444	390
France	61	27
Germany	81	31
Italy	29	18
Netherlands	79	49
Spain	33	32
UK	33	74
US	274	268
Canada	59	43
Japan	122	8
Africa	10	51
Asia	339	436
China	110	123
Hong Kong, China	80	96
Korea	28	11
Singapore	36	55

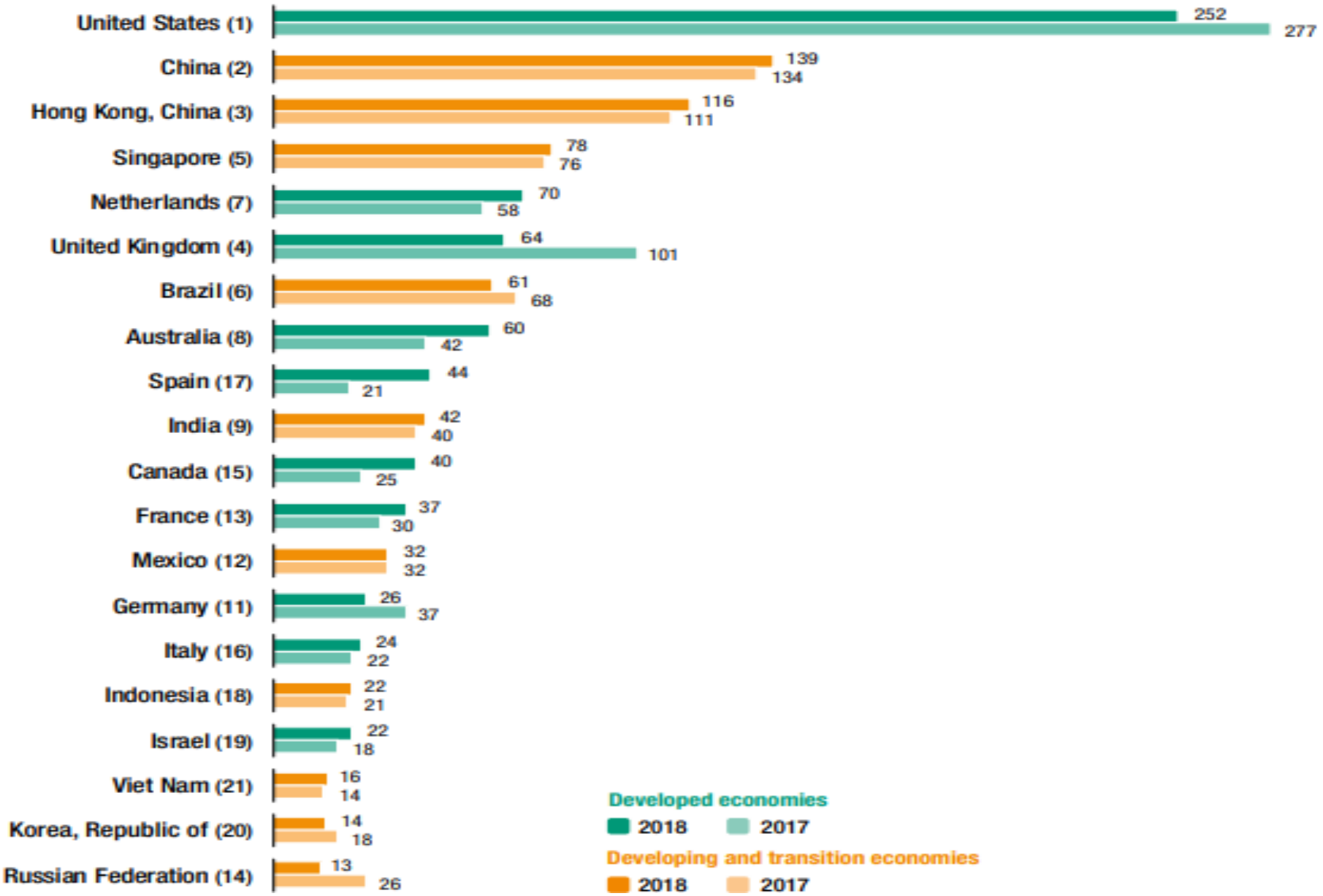
Annual Average FDI Flows, 2008-2018 (bn USD)

	Outflows	Inflows
South America	21	114
Brazil	2	62
Mexico	9	30
Russia	43	34
Turkey	3	14
Bulgaria	0,5	3
Cyprus	7	7
Greece	1	3
Malta	0,1	9
Portugal	0,1	5
Sweden	22	12

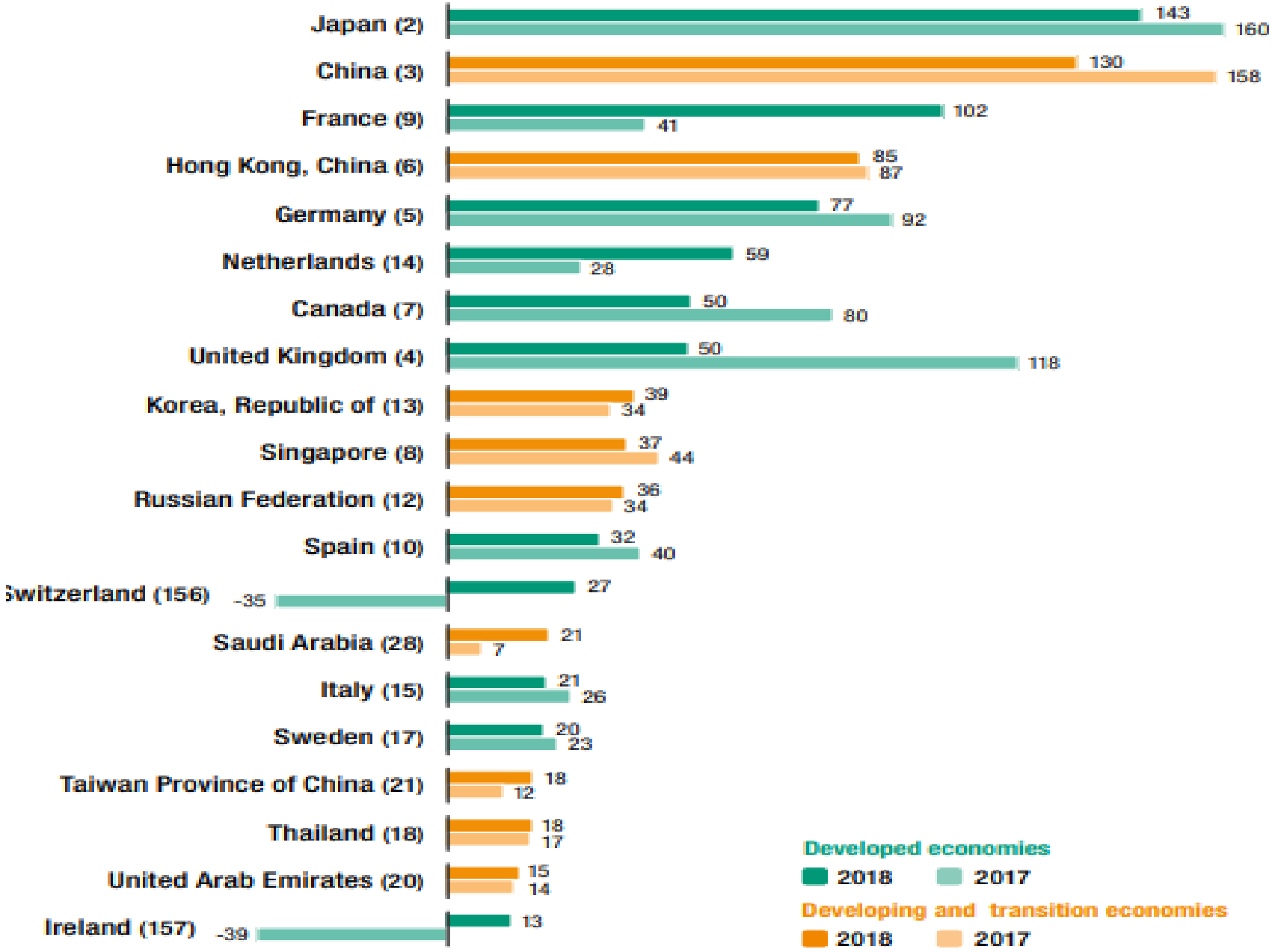
Cautionary Note

The large and growing divergence between bilateral FDI positions held by direct investors (as reported by standard bilateral FDI data) and by ultimate investors is one of the main issues affecting FDI statistics. According to 2016 FDI statistics reported by Germany, for example, Luxembourg and the Netherlands account for a combined 41 per cent of total bilateral inward FDI in Germany, and the United States for only 8 per cent. FDI positions by ultimate investors (reported by Germany and few other developed countries) radically modify this picture, however: the share of the United States rises to 21 per cent, and Luxembourg and the Netherlands combined make up only 14 per cent of German inward FDI stock. Similar differences apply to all other countries whose reported data allow direct comparison.

FDI Inflows 2017,2018 (bn USD)



FDI Outflows 2017, 2018 (bn USD)



In 2018, MNEs from developed countries reduced their investments abroad by 40 per cent to $558 billion. As a result, their share in global outward FDI dropped to 55 per cent – the lowest ever recorded . The significant decline was less a reflection of real investment intentions than of the impact of the large-scale repatriations of accumulated foreign earnings by US MNEs, which resulted in negative outflows. In 2018, the reinvested earnings of US MNEs slumped by a net $367 billion and turned sharply negative, at -$200 billion, compared with a positive $168 billion in 2017. In addition to the immediate repatriation effect, the tax reforms resolved the tax liability overhang on overseas assets, which may have contributed to a jump in cross-border M&A purchases by United States MNEs to $253 billion – a record high. The majority of acquisitions took place in the EU, mainly in the UK and Germany, but also in India and Japan.

FDI Inward Stock (million USD)

Region/economy	1990	2000	2007	2014	2018
Austria	11 606,1	31 164,9	159 552,0	175 755,6	209 098,2
Belgium	-	-	810 944,2	556 044,7	522 348,2
Bulgaria	112,3	2 703,7	37 935,6	45 461,5	49 275,9
Cyprus	- 849,1	2 845,9	18 191,4	179 866,7	224 284,4
Czechia	1 363,0	21 643,7	112 408,0	121 511,8	155 023,7
Denmark	9 191,8	73 574,0	107 609,9	95 766,4	114 531,6
Estonia	-	2 645,4	15 670,6	20 972,1	24 342,2
Finland	4 276,5	24 272,6	91 702,6	91 971,8	67 335,3
France	104 267,9	184 215,0	623 625,4	700 065,0	824 915,5
Germany	226 551,8	470 937,7	952 220,1	859 565,0	939 033,2
Greece	5 680,8	14 112,8	53 220,8	21 550,3	33 636,9
Hungary	569,6	22 869,9	95 469,3	99 573,4	88 736,1
Ireland	37 988,9	127 088,7	203 682,6	429 847,4	909 509,3
Italy	59 997,6	122 533,0	376 513,0	352 501,6	431 019,7
Luxembourg	-	-	137 380,4	229 229,5	164 806,0
Malta	465,3	2 263,2	111 755,9	173 342,6	206 684,6
Netherlands	71 827,8	243 732,9	767 456,3	1 425 124,6	1 673 813,8
Poland	109,0	33 476,7	164 370,1	211 483,9	231 848,1
Portugal	9 603,8	34 223,7	119 681,8	120 224,6	135 776,8
Romania	0,0	6 953,0	61 609,8	73 087,0	94 020,8
Slovakia	281,8	6 969,9	47 713,3	49 740,8	57 109,3
Spain	65 916,4	156 348,2	585 857,3	587 122,0	659 037,5
Sweden	12 636,0	93 791,2	297 183,2	323 652,9	322 439,4

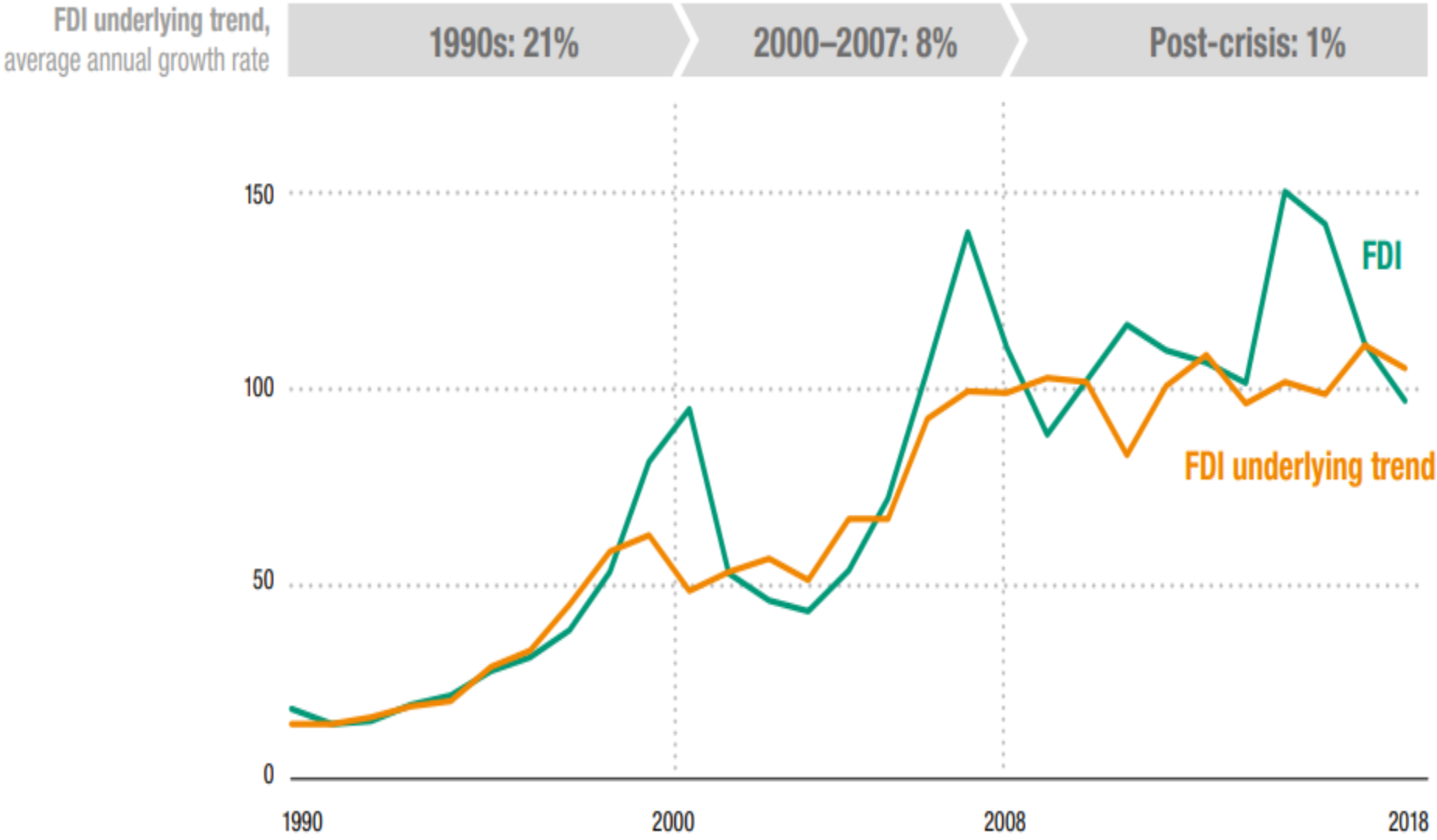
FDI Inward Stock (mn USD)

	1990	2000	2007	2014	2018
United Kingdom	203 905,4	439 457,7	1 124 649,7	1 581 501,1	1 890 384,4
Norway	12 391,0	30 265,0	176 208,9	166 151,0	123 444,2
Switzerland	34 244,8	101 634,8	381 391,0	812 825,9	1 062 827,0
Canada	112 843,2	325 020,0	1 032 966,3	994 711,6	893 959,4
United States	539 601,0	##########	3 551 307,0	5 456 888,0	7 464 678,0
Australia	80 364,4	121 685,8	391 760,6	582 535,4	682 866,0
Israel	4 476,0	20 425,7	49 088,6	89 619,7	148 045,0
Japan	9 850,0	50 322,9	132 854,4	171 663,3	213 753,9
New Zealand	7 938,4	24 101,4	58 967,2	76 624,1	74 764,4
South Africa	9 210,4	43 451,0	131 831,1	138 905,6	128 809,3
China	20 690,6	193 348,0	327 087,0	1 085 293,0	1 627 719,2
Hong Kong, China	201 652,9	435 417,1	1 147 889,3	1 496 082,7	1 997 220,4
Korea, Republic of	5 185,6	43 738,0	121 956,5	179 441,0	231 408,5
Malaysia	10 318,0	52 747,5	75 762,6	135 798,0	152 510,2
Singapore	30 468,0	110 570,3	420 877,0	1 027 435,6	1 481 032,8
Thailand	8 242,2	30 944,0	94 679,5	196 379,6	222 733,2
Viet Nam	242,9	14 730,3	31 825,3	90 991,3	144 991,3

FDI Inward Stock (mn USD)

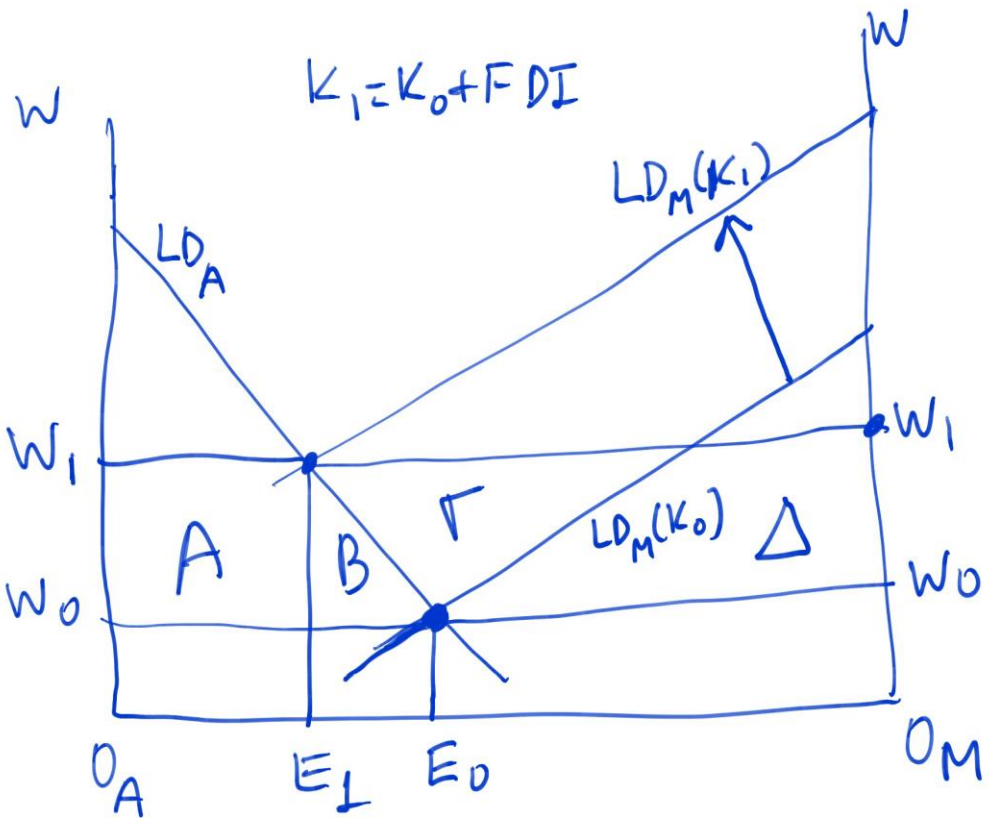
	1990	2000	2007	2014	2018
Turkey	11 150,3	18 812,0	155 699,0	183 788,0	134 524,0
Brazil	37 143,4	-	292 530,6	601 489,9	684 212,7
Chile	16 106,7	45 753,4	107 582,7	223 171,8	269 298,5
Colombia	3 500,1	11 157,2	56 463,5	141 786,3	188 750,7
Mexico	22 424,0	121 691,0	311 646,7	491 707,3	485 806,7
Kazakhstan	-	10 077,7	44 590,0	132 127,4	149 253,6
Russian Federation	-	29 738,0	488 280,0	290 038,6	407 362,4
Ukraine	-	3 875,0	38 059,0	49 835,0	43 757,0

FDI inflows and the underlying trend, 1990–2018 (2010 = 100)



3. FDI with Flexible Wages

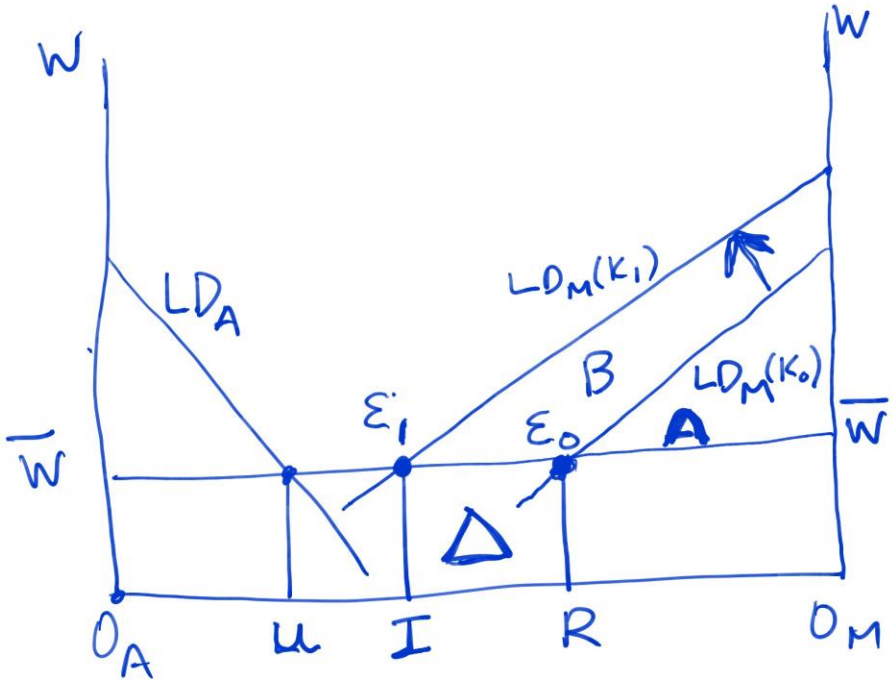
Diagram shows the effects of inward FDI, which increases the stock of capital employed in the domestic economy to $K_1 = K_o + FDI$. As a result, the marginal product of labour in the M sector increases, and the demand for labour curve in that sector moves upwards. In the new equilibrium, the wage rate is higher than the initial wage rate $w_1 > w_o$. Workers gain (areas) A+B+Γ+Δ. Landowners lose A+B.



Note that the income received by all capitalists (domestic and foreign) increases. But what happens to the income of domestic capitalists? *Most likely* it will **decrease.** This is because now there is more capital in the economy, so capital is less scarce, and thus the reward per unit of capital will be smaller. We thus conclude that both domestic landowners and domestic capitalists would be against inward FDI, whereas domestic workers should welcome it.

4. FDI with Unemployment

Since wages are fixed at $\overline{w}$, the influx of foreign capital will not result in a rise in wages, but it will lower unemployment; initially there were UR units of unemployed labour, and afterwards just UI. Total workers income rises by area **Δ**, while the total value of output produced in the domestic economy rises by areas **Δ+B.** The income of landowners stays the same, while the income of all (domestic and foreign)



capitalists increases by area **B.** Most likely, domestic capitalists do not lose in this case, since wages do not rise and the reward per unit of capital does not fall. Therefore, since in this case there are no clear losers from the inward FDI, it is more likely that it will receive broad political support.