Norway, Asia and the Global Value Chains

Asia's Growth and Norway's Economic Links to Asia

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A Study for the Norwegian Ministry of Foreign Affairs, 2013

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Preface

This report is written as part of a project funded by the Norwegian Ministry of Foreign Affairs in 2013. The core project team has included the authors of this report, Donghyun Park, Asian Development Bank, Manila and Innwon Park, Korea University, Seoul. Parallel to this report, a paper entitled "Regional Trade Agreements in East Asia" by Innwon Park will also be published. In addition, supplementary statistics will be provided in electronic form.

This report focuses on the economic development of Asia and Norway's economic links to Asia, and aims to provide a compact and up-to-data analysis in these fields. There are many important aspects that are not covered by the analysis, e.g. political issues, security issues, environmental issues and humen right issues.

Arne Melchior, NUPI has been project manager and the main author of this report. Jo Thori Lind, NUPI/University of Oslo has written main parts of Chapter 3. Christine Mee Lie, now at the University of Oslo, worked as a Research Assistant at NUPI for the project, working on data and writing parts of Chapter 4.

We thank the Ministry for the financial support for the project. We also thank staff at the Ministry of Foreign Affairs, and the Ministry of Trade and Industry, for background information and for comments to an earlier draft. The responsibility for the text, including all the views expressed as well as possible remaining errors, stays with the authors.

Oslo, 8 December 2013.

Arne Melchior

Project Manager

Summary

The study examines the economic development of and Norway's economic links to Asia.[1] During the latest decades, this region has grown to a major player in the world economy. Chapter 1 shows that Asia grew

- to 34 % of world GDP (2010)
- to 28 % of world trade in goods (2010)
- to 21 % (23 %) of world services exports (imports) (2010)
- to 15 % of world inward FDI, and 12 % of world outward FDI (stocks, 2012).

The growth of the region is characterised by regional production networks, with large and fast-growing intra-regional trade in intermediate goods. Compared to Europe, there is less intra-Asian trade in consumer goods.

Asia is more heterogeneous than Europe, with several countries poorer than Romania and Bulgaria at the low end of EU-27. The poorest countries have grown fastest, contributing to convergence, and this is expected to continue. Even with lower growth rates than in the recent past, the nominal GDP of the region may double by 2025, increasing further its importance of Asia in the world economy. For some middle-income countries, upgrading of skills and institutions is necessary in order to avoid the middle income trap and develop further into more skilled industries and services.

Norway has maintained its share in the foreign trade of Asia-16; thereby following the exceptionally fast trade growth and maintaining balanced trade with the region, or a slight surplus if services are included. During the last decade, there was exceptionally high export growth to a number of Asian markets. Norway exports commodities and capital goods to Asia, and imports consumer and capital goods. Seafood exports to Asia remain significant but its share has decreased over time. Norway's trade with China also grew fast during recent years, with a peak in 2009. After 2009 there was a general decline, affecting several sectors of imports as well as exports.

Services trade represented 30 % of Norway's exports of goods and services to Asia in 2012, and 20 % of imports. Shipping and "other business services" were the main sectors in exports as well as imports. Singapore, followed by Australia, China, Korea and Japan were the largest trade partners for services.

[1] We generally cover the 16 countries planning to form the RCEP (Regional Comprehensive Economic Partnership) agreement by 2015; including ASEAN, +3 (China, Japan, Korea) and ++3 (Australia, New Zealand, India). The Appendix to the report contains comprehensive data that may be used in the study of individual countries.

For services, sales from Norwegian-controlled enterprises in Asia was much larger than direct trade across borders. In 2011, there were 425 Norwegian-controlled enterprises in Asia, employing 48 000 people and having a turnover at 136 billion NOK. More than half was in the services sectors. FDI in the region increased from 2.5 to 11.4 % of Norway's outward FDI stock during 1998-2011. Singapore was the major destination, with 80% of outward FDI to Asia, focusing on shipping, offshore and business services. Singapore may also serve as a hub for investments in other Asian countries. In addition to FDI, there was significant portfolio investment in Asia, with Government Pension Fund Global (GPFG) investments in Asia-16 representing 12.9 of the GPFG total value. This is lower than the share of Asia in world GDP, but due to new allocation rules from 2012, the share for Asia in GPFG's stock is expected to rise gradually. For various reasons, investment from Europe into China is generally low (comparatively), and this also applies to Norway's FDI as well as the Government Pension Fund.

Outward FDI from Asia has accelerated recently and is expected to grow further in the future. Asia's share has increased from 2.0 to 5.4 % of Norway's inward FDI stock, and Singapore and China were the largest investors.

Comparing Norway's imports of goods from Asia with the corresponding exports to Norway reported by Asian countries, the value of the former is about twice as large as the latter, and the gap is growing over time. One possible explanation is statistical error: goods are shipped indirectly and the origin or destination are misreported. Another is that there is a price mark-up on the way to Norway, due to additional distribution costs or trade mispricing; the latter may occur for various motives (e.g. tax reasons). The analysis suggests that the two types of explanations are about equally important, and the "true" price mark-up is 37 % on average. Using these results, we conclude that Norway had about balanced trade with Asia-16, not a substantial trade surplus, as suggested by Asian data.

On the whole, Norway has succeeded in expanding its economic links with Asia parallel to the growth of Asia, with fast growth in trade and investment. A particular feature of Norway's Asia relations is that ASEAN, and Singapore in particular, has a role for FDI and services trade that is disproportionally large compared to their economic size.

For Norway, low-cost imports from Asia has contributed to lower price growth for consumer goods, and increased demand for oil and other commodities from Asia has led to higher prices for Norwegian exports. Summing this and comparing to the year 2000, there was a terms of trade gain equivalent to 27% of GDP in 2012, or a gift of 45 billion USD. Asia was a major factor behind this.

In 2000, there were only a handful of free trade agreements (FTAs) in Asia but later, this has expanded rapidly into currently 71 FTAs and several more under negotiation. There has been considerable progress regarding the depth and coverage of agreements, but Asia still some way from a "single market". Several plans have been launched in order to consolidate FTAs into comprehensive "mega-FTA"; with ASEAN+3 (including China, Japan and Korea) as one option or Asia-16, also including India, Australia and New Zealand, as another. The latter is reflected in the

plans for RCEP (Regional Comprehensive Economic Partnership), to be negotiated by 2015. A partly overlapping and partly competing scheme is the Trans-Pacific Partnership (TPP), where negotiations involve 12 countries including the USA, but excluding China. There is currently a heated debate about the options and the expectation is that the formation of mega-FTAs in Asia will take time and evolve gradually. Agreement between China, Japan, Korea will be an important building block. There is rivalry concerning who should have the lead; China prefers ASEAN+3, RCEP is led by ASEAN but Japan has launched another initiative involving Asia-16.

As part of this project, a separate study on FTAs in Asia (Park, 2013) studies FTAs in greater depth and concludes that there will be major welfare gains from a mega-FTA such as RCEP, and even larger gains if one can achieve a FTAAP (Free Trade Area of the Asia Pacific), including RCEP+TPP countries. This is however politically some way ahead.

For Norway, some policy issues and implications from the analysis are:

- Norway has successfully adapted to Asia's growth and succeeded developing its economic links with the region. This process will continue in the future, and be extended into new areas such as larger inward investment from Asia.
- In the light of Asia's greater economic importance, Norway should aim to expand further its FTA network in Asia. Norway should however also support multilateral agreements, in order to avoid an excessively complex network of bilateral FTAs, with different rules and regulations across the globe.
- With slower progress in multilateral institutions such as the WTO, Norway should also explore "plurilateral" initiatives, including some countries but not all, inside the WTO or outside, e.g. by "revitalising" the OECD in the field of trade or investment policy.
- In the new trade policy situation, Norway's trade policy can no longer be "reactive" to the same extent as in the past: a comprehensive and more proactive approach is needed where bilateral, plurilateral and multilateral approaches are combined to achieve trade policy goals, e.g. with respect to major regions such as Asia. For this purpose, the coordination and division of labour between relevant institutions (ministries) may also be re-examined.
- While Norway has relatively large FDI in ASEAN, the opposite is true for Norwegian investment in China; for FDI and portfolio investment. The reasons underlying this are probably on the Norwegian side as well as the Chinese side, and should be examined further. In this context, the role of holding companies and indirect investment via other Asian countries is also of interest.
- Norway should examine further why there is a huge and growing gap in trade data reported by Asia versus Norway. Depending on what is found about the causes, the policy implications could range from better statistical methodology to measures to combat tax evasion.

Sammendrag på norsk

Studien analyserer Asias økonomiske utvikling og Norges økonomiske forbindelser med Asia.[2] I løpet av de siste tiårene har Asia vokst til å bli en hovedaktør i verdensøkonomien. Kapittel 1 viser at Asia har vokst til å representere

- 34 % av verdens BNP (kjøpekraftsjustert, 2010)
- 28 % av verdenshandelen med varer (2010)
- 21-23 % av verdenshandelen med tjenester (2010)
- 15 % av verdens inngående direkteinvesteringer (FDI), og 12 % av utgående FDI (2012).

Asias vekst er preget av regionale produksjonsnettverk, med betydelig og raskt voksende handel med innsatsvarer mellom landene i regionen. Sammenliknet med Vest-Europa er det mindre intra-regional handel med konsumvarer i Asia.

Asia er mer heteogent enn Europe, med mange land på inntektsnivåer som er lavere enn de fattigste i EU-27 (Romania og Bulgaria). De fattigste landene har imidlertid vokst raskest. Dette har bidratt til inntektskonvergens mellom land i regionen, og denne trenden forventes å fortsette. Selv med noe lavere vekstrater enn før kan nominelt BNP i Asia fordobles til 2025, med ytterligere økt betydning for Asia i verdensøkonomien. For noen mellominntektsland er det nødvendig med oppgradering av kunnskap og institusjoner for at de skal unngå "mellominntektsfellen" og utvikle seg mot mer kunnskapsintensive industri- og tjenestenæringer.

Norge har opprettholdt sin andel av Asias utenrikshandel, og dermed holdt tritt med den eksepsjonelt raske handelsveksten i regionen. Norge har omtrent balansert samhandel med Asia, eller et lite overskudd dersom vi tar med tjenestehandelen. I løpet av det siste tiåret var det eksepsjonelt rask eksportvekst til mange asiatiske markeder. Norge eksporterer råvarer og kapitalvarer til Asia, og importerer konsum- og kapitalvarer. Sjømateksporten til Asia er fortsatt betydelig, selv om dens andel av eksporten har falt noe. Norges handel med Kina har også vokst hurtig de senere år, til et toppunkt i 2009. Etter 2009 har det vært en generell nedgang, for flere sektorer i både eksport og import.

Tjenestehandel representerer 30 % av Norges eksport av varer og tjenester til Asia, og 20 % av importen. Skipsfart og "andre forretningstjenester" er de viktigste sektorene for både eksport og import. Singapore, etterfulgt av Australia, Kina, Korea og Japan, er de viktigste handelspartnerne for tjenester.

[2] Generelt dekker vi de 16 landene som planlegger å etablere avtalen om RCEP (Regional Comprehensive Economic Partnership) innen 2015, det vil si ASEAN (10 land), Kina, Japan og Korea (av og til omtalt som "+3"), samt India, Australia og New Zealand. Tabellvedlegget inneholder omfattende tallmateriale som kan brukes til analyse av enkeltland.

For tjenester er salg fra norsk-kontrollerte selskaper i Asia mye større enn den direkte eksporten over grensene. I 2011 var det 425 norsk-kontrollerte selskaper i Asia, som sysselsatte 48 000 personer og hadde en omsetning på 136 milliarder NOK. Mer enn halvparten av dette var i tjenestenæringene. Direkteinvesteringer (FDI) i Asia økte fra 2.5 til 11.4 % av Norges samlede utenlandsinvesteringer fra 1998 til 2011. Singapore er det viktigste landet, med 80 % av samlet norsk utgående FDI til Asia. Singapore kan også være mellomledd for investeringer relatert til andre asiatiske land. I tillegg til direkteinvesteringer var det betydelige porteføljeinvesteringer i Asia, med Statens Pensjonsfond Utland som den viktigste aktør. Investeringer i Asia utgjorde ved utgangen av 2012 12.9 % av fondets samlede verdi. Dette er lavere enn Asias andel i verdens BNP, men som følge av nye forvaltningsregler i fondet fra 2012 forventes Asias andel å stige over tid. Av ulike grunner er Europas investeringer i Kina relativt sett lave, og dette gjelder også for Norges FDI så vel som pensjonsfondet.

Utgående direkteinvesteringer fra Asia har i det siste skutt fart, og forventes å øke ytterligere i framtida. Asias andel i Norges inngående direkteinvesteringer har økt fra 2.0 til 5.4 %, med Singapore og Kina som de største investorene.

Hvis vi sammenlikner Norges vareimport fra Asia med de asiatiske landenes motsvarende statistikk for eksport til Norge, finner vi overraskende at eksporten er om lag dobbelt så stor som eksporten. En mulig forklaring er datafeil: varene sendes indirekte og opprinnelses- eller bestemmelsesland blir feilrapportert. En annen mulighet er at det er et prispåslag på veien, som følge av påløpte kostnader eller feilprising i handelen; det siste kan skje på grunn av ulike motiver (for eksempel skattemotivert). Analysen viser at de to typene forklaring er omtrent like viktige, og det "sanne" prispåslaget for importen fra Asia er på 37 % i gjennomsnitt. Ved å bruke disse resultatene finner vi at Norge har omtrent balansert varehandel med Asia; ikke et betydelig handelsoverskudd – slik statistikken fra Asia tyder på.

I det store og hele har Norge lyktes i å øke det økonomiske samkvem med Asia parallelt til regionens økonomiske vekst, med rask økning i samhandel og investeringer. For investeringer og tjenestehandel er det et spesielt trekk ved Norges økonomiske forhold til Asia at ASEAN, og spesielt Singapore, har en svært høy andel sammenliknet med deres økonomiske størrelse.

For Norge har import fra Asia med lave priser bidratt til lavere prisvekst for konsumvarer, og økt etterspørsel fra Asia etter olje og andre råvarer har bidratt til høyere priser for Norges eksport. Hvis vi oppsummerer dette og sammenlikner med året 2000 finner vi at det var en gevinst i bytteforholdet med utlandet som tilsvarte 27% av BNP i 2012, eller en gave på 45 milliarder dollars. Asia var en viktig faktor bak dette.

I år 2000 var det bare en håndfull frihandelsavtaler i Asia, men senere har antallet eksplodert, til 71 avtaler i dag og mange flere under forhandling. Det har vært betydelige framskritt for avtalenes omfang og graden av liberalisering, med det er fortsatt et stykke fram til et "indre marked" i Asia. Flere planer er lansert for å konsolidere froihandelsavtalene i omfattende regionale "mega-frihandelsavtaler": med ASEAN+3 (dvs. Med Kina, Japan, Korea) som ett alternativ og Asia-16, med India, Australia og New Zealand i tillegg, som et annet. Det sistnevnte

er planen i RCEP (Regional Comprehensive Economic Partnership) som skal forhandles innen 2015. En delvis overlappende og delvis konkurrerende avtale er TPP (Trans-Pacific Partnership), der forhandlingene omfatter 12 land inkludert USA, men ikke Kina. Det pågår for tiden en intens debatt om de ulike mulighetene men forventningen er at det vil ta tid å få på plass en mega-frihandelsavtale og dette vil skje gradvis medd flere skritt. En avtale mellom Kina, Japan og Korea vil være en viktig byggestein. Det er rivalisering om hvem som skal lede an; Kina foretrekker ASEAN+3, RCEP ledes av ASEAN men Japan har lansert et annet initiativ for de samme 16 landene.

Som en del av prosjektet er det utarbeidet en egen artikkel (Park 2013) som analyserer frihandelsavtaler i Asia mer grundig. Den konkluderer at det vil være betydelige velferdsgevinster fra en mega-avtale som RCEP, og enda mer å hente hvis man går lenger og danner FTAAP (Free Trade Area of the Asia Pacific), med landene i RCEP+TPP inkludert. Politisk sett er imidlertid dette et stykke inn i framtida.

For Norge reiser analysen en del implikasjoner og politiske spørsmål:

- Norge har med suksess hengt med i Asias vekst og utviklet de økonomiske koblinger til regionen. Dette vil fortsette i framtida, og spres til nye områder, som eksempelvis større inngående investeringer fra Asia.
- I lys av Asias økende betydning bør Norge utvikle videre sitt nettverk av frihandelsavtaler i regionen. Norge bør imidlertid også støtte utviklingen av multilaterale avtaler, for å unngå et altfor komplekst system av tosidige avtaler, med ulike regler og reguleringer på kryss og tvers av kloden.
- Med svakere framskritt i multilaterale institusjoner som WTO bør Norge også se på muligheten for ”plurilateraler” avtaler der noen men ikke alle land deltar. Dette kan skje innenfor eller utenfor WTO; for eksempel ved å revitalisere OECD på det handels- og investeringspolitiske felt.
- I den nye handelspolitiske situasjonen kan Norges politikk ikke være ”reaktiv” på samme måte som før; en bred og mer proaktiv tilnærming trengs for å utnytte mulighetene som bi-, pluri- og multilaterale spor gir for å oppnå handelspolitiske mål, for eksempel overfor viktige regioner som Asia. For dette formål kan det også være hensiktsmessig å revurdere arbeidsdelingen mellom de relevante institusjonene (departementene).
- Mens Norge har betydelige direkteinvesteringer i ASEAN, er det motsatte tilfelle for norske investeringer i Kina; både direkte- og porteføljeinvesteringer. Årsakene til dette kan ligge både i Norge og Kina, og bør undersøkes nærmere. Betydningen av holdingselskaper og indirekte investeringer via andre land i Asia er her også av interesse.
- Man bør undersøke nærmere hvorfor det er et stort og voksende gap mellom handelsstatistikk fra Asia versus Norge. Avhengig av hvilke årsaker man finner, kan aktuelle tiltak være alt fra bedre statistikk-metode til kamp mot skatteunndragelse.

1: Introduction

During the last four decades, the most dramatic change in the world economy has been the rise of Asia, with rapid economic growth lifting hundreds of millions out of poverty and making Asia a giant region in the world economy. This study examines the economic development of Asia, focusing on four aspects; the role of Asia in the world economy; the heterogeneity of Asia and future growth prospects; the process of intra-regional integration in Asia; and Norway's economic links to Asia. The countries studied cover about half the world's population, 34 % of world GDP (PPP), and 28 % of world trade. In the report, we show that integration in Asia occurs in a setting that is different from post-war Europe, and highlights some major differences between post-war European integration and the current Asian process:

- First, there is currently greater heterogeneity between countries in ASEAN+6 than among EU/EEA countries in terms of income levels. This is a two-way relationship: heterogeneity makes integration more difficult since countries may have different economic needs or interests. On the other hand, integration may contribute to convergence. For example, EU enlargement has clearly contributed to income convergence between European countries (Melchior 2011).
- Second, post-war integration in Europe happened, at least during the early stages, in a setting with predominantly national production systems. In contrast, Asian growth and trade is partly driven by international investment (FDI), with a strong role for international production networks. Whereas Western Europe thrived through massive expansion of two-way trade in similar consumer products (intra-industry trade, e.g. VW vs. Peugeot), intra-Asian trade is to a larger extent characterized by vertical specialization – trading components and raw materials against consumer goods. For consumer goods, markets outside Asia are still more important.

Chapter 2 sets the stage by examining the rise of Asia in the world economy, focusing on the role of Asia in world trade in goods and services as well as FDI, and the increasing role of intra-Asian trade and production networks.

Chapter 3 focuses on growth and the heterogeneity of Asia, has there been income convergence or divergence? Focusing on income growth; patterns of trade and industrial change; and long-term determinants of growth and development such as skills, institutions and inequality, we present growth forcasts and future growth prospects.

Chapter 4 maps Norway's economic links to Asia, covering trade in goods and services, FDI and portfolio investments, and how Norway is linked to Asian value chains. The chapter also analyses the large statistical discrepancies found between Asian and Norwegian statistics for bilateral trade flows.

In chapter 5, we discuss implications of the analysis, with a particular focus on trade policy and the emerging pattern of free trade agreements in Asia, and how Norway relates to this.

A separate paper on FTAs in Asia (Park 2013) is also published as part of the project. This contains a comprehensive analysis of FTAs in Asia and is the primary project output in that area.

In the analysis, an objective is to present comprehensive and up-to-date statistics and data analysis, and the Appendix includes 28 tables with such information in all the fields covered by the analysis. Some of this is used directly in the analysis, but the intention is also to provide a comprehensive set of data that may be used for more detailed study of individual countries.

The study focuses on the countries involved in the most recent initiative for comprehensive trade integration in Asia; the RCEP (Regional Comprehensive Economic Partnership). RCEP involves the 10 countries of ASEAN; the +3 group (China, Japan and Korea); and what we may call ++3 (Australia, India, New Zealand). We generally refer to this as Asia-16 or ASEAN+6. In some contexts, we also use data including Taiwan, Hong Kong and Macao (Asia-19); given their geographical location and (especially for Hong Kong and Taiwan) importance for trade and financial flows. Sometimes data availability is limited so we may end up with undesired groups, we then use terms such as Asia-15 etc. to indicate data coverage.

With respect to time period, the aim is to provide an updated analysis with the most recent data available, but also show trends over the last decade, or longer if data permits. The time coverage varies across chapters, depending on data availability and the purpose of the analysis.

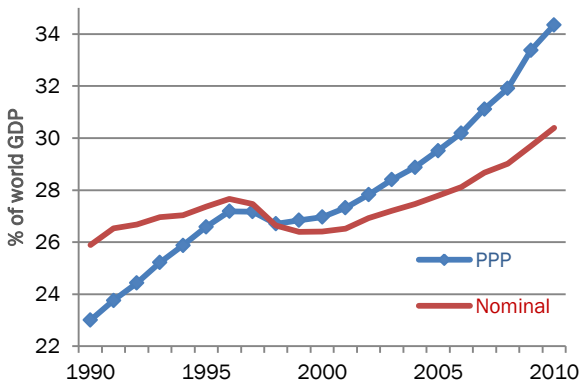
2: Asia in the world economy: global value chains and Asian production networks

2.1. Asia's share of the world economy

For several decades, Asia – in particular East and South East Asia, had fast economic growth and increased their share of the world economy; starting with Japan, later followed by other countries in the region, and then China. While South Asia is still far behind, India joined the club of fast-growing economies from the 1990s. The Asian miracle is well known; in this chapter we will review it in a compact way, adding new data and some qualifications to the story. In short: A brief portrait of the Asian miracle, focusing on recent decades.

Figure 1 shows that the share of Asia in the world economy increased rapidly from 1990 to 2010.[3] The pace of this change, however, depends strongly on whether we use ordinary exchange rates ("Nominal" in the graph), or constructed exchange rates that correct for differences in purchasing power parity across countries (PPP). According to PPP data, Asia's share rose from 23 to 34% of the world economy; with nominal exchange rates it increased from 26 to 30%.

Fig. 1: Asia (18) share of world GDP



Using PPP data is appropriate in this context, but there is more uncertainty about data since such data depend on extensive collection of price data across the globe, undertaken in the International Comparison Program.[4] This is however not an easy task, and the problems were illustrated when the World Bank, after obtaining new price data from the 2005 ICP round of data collection, suddenly adjusted the real income level of China down by 40% (see e.g. Ravaillon 2013 for a discussion)! Similar adjustments were made for a number of other developing countries, and this reveals the fragility of PPP data. Note that ICP data are collected on a regional basis, and a couple of countries are used as links from one region to the others. If anything goes wrong with these "ring leaders", it can affect the outcome for the whole region. Hence there is some uncertainty about the reliability of PPP data and the speed of Asian growth, but there is no reason to doubt the existence of the Asian miracle, as it is corroborated by other indicators, e.g. global market shares.

[3] Own calculations based on data from World Development Indicators. Comparable data for Cambodia is missing; therefore Asia (18).

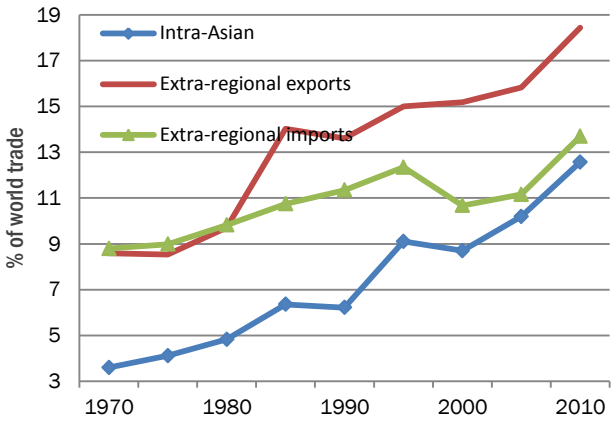
[4] See http://siteresources.worldbank.org/ICPEXT/Resources/ICP_2011.html.

When comparing GDP levels across countries, it is important to recall that GDP does not only measure private consumption, but also includes investment and government consumption. This is particularly important in the context of Asia, where a comparably high share of GDP has been investment. While gross savings in the OECD in 2012 was at 17 % of GDP, China had 52 % and a number of other Asian countries were above 30 %. An implication of this is that Asia's share of world consumption has risen less than its share of world GDP. This is important to recall in discussions about global convergence and world inequality: GDP figures capture the economy and not only consumption. Fast growth in emerging countries in Asia has contributed to global convergence across countries, measured by GDP per capita, but if we use consumption per capita this trend is somewhat weaker (but still present).

2.2. Asia's role in world trade in goods

Asia's growth has been intrinsically linked to manufacturing exports; several countries have started exporting labour-intensive goods and gradually moving into more capital- or skill-intensive sectors. Asia is the "world's manufacturing workshop". Figure 2 shows the shares of Asia-19 in world trade in goods 1970-2010. The underlying data are presented in Appendix Table 1, which also distinguishes between manufactures and commodities.

Fig. 2: Asia-16 in world trade, 1970-2010
(% for trade in goods)



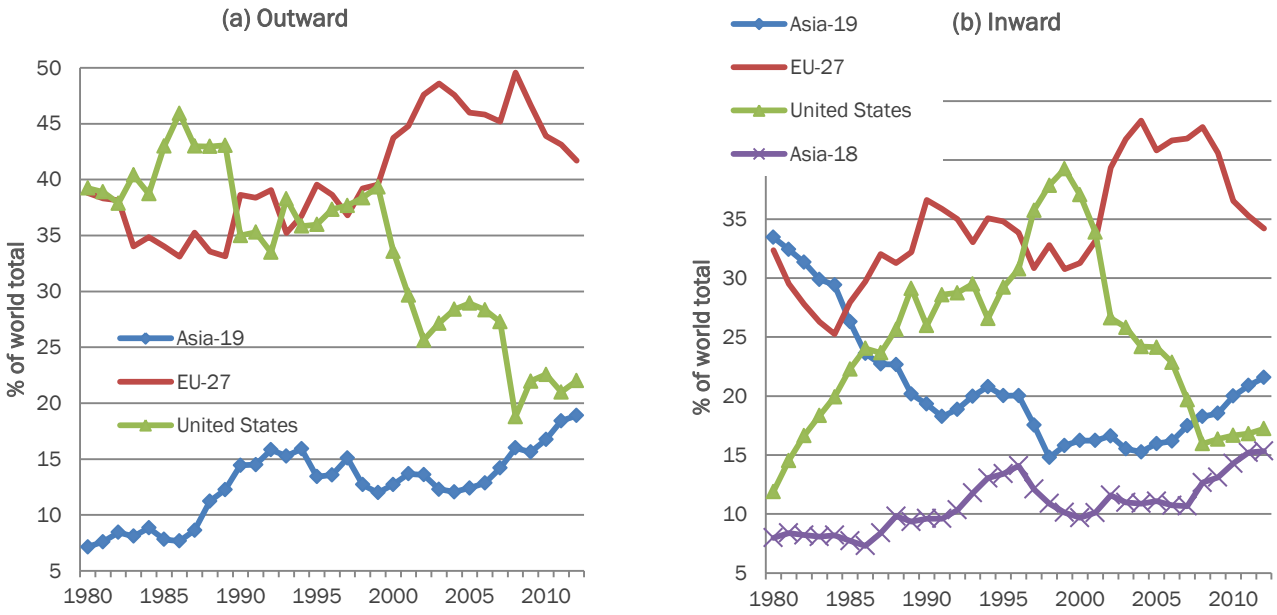
Undertaking a similar analysis with the world divided into six major regions, Melchior (2012) shows that intra-Asian trade was one of the fastest growing components of world trade. For Asia-16 this share grew from 4 to 13 %. Asia's exports to the rest of the world (ROW) also grew rapidly, and more rapidly than the corresponding imports. Adding the three components, we find that the total share of Asia-16 in world trade increased from 12% in 1970 to 28% in 2010. Appendix Table 1 shows that in trade with ROW, the developments for manufacturing and commodities were different: Manufacturing exports to ROW, and commodity imports from ROW, grew faster.

2.3. Asia's share of world FDI

For Asia's manufacturing expansion, FDI has played an important role, especially for machinery and transport equipment. Textiles production has more often been nationally owned, but often in the form of production for multinational companies. With this growing role of global value chains (GVCs), FDI as well as NEF (Non-Equity Forms of relationships to GVCs) are key

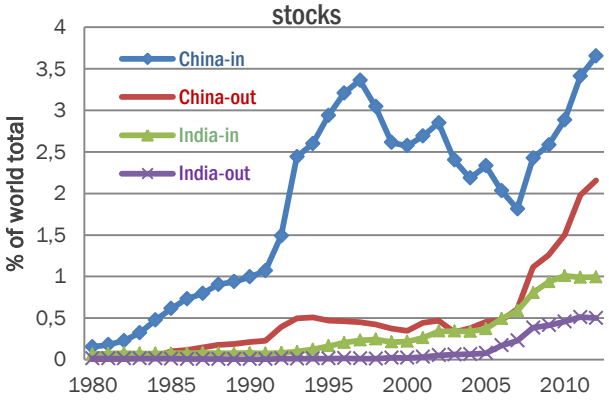
ingredients. Figures 3a and 3b show the share of Asia-19 in the world's FDI stocks, 1980-2010, based on data from UNCTAD. Observe that there was strong growth in FDI during the period, so a falling share does not imply falling FDI.

Fig. 3: Shares of world FDI stock 1980-2012 for major regions. Data source: UNCTAD.



Asia's share in world inward FDI fell strongly before 1998. A major reason was the disinvestment in Hong Kong before the 1997 transition; Hong Kong's share of world inward FDI fell from 25% in 1980 to 5% in 1997. Showing Asia-18 without Hong Kong in Fig. 3b (the lower curve), it resembles the corresponding curve in Fig. 3a; with a steady growth over the period and particularly during the last decade. Asia-18 now has a share of world outward/inward FDI at 13/15 %. The corresponding figures for Asia-19, including Hong Kong, is 22 % (inward) and 19% (outward). With Asia growing richer and some countries (e.g. China) having large current account surpluses, growing international investment is likely.

Fig. 4: The share of China and India in world FDI stocks



Appendix Table 2 shows FDI shares for each Asia-19 country. In Asia-19, Hong Kong, Japan, China, Singapore and Australia are the largest FDI actors, with significant inward and outward FDI. Japan has little inward investment; whereas for Australia, China and

Singapore, inward stocks are larger than outward.

In the light of recent debates on China's and India's FDI in some countries, Fig. 4 also shows the shares of these two giants in world FDI stocks over time. Both have increased; China's levels are about four times larger than those of India; and inward is about twice as large as outward FDI stocks for both. During the last five years, outward FDI has taken off. This was to be expected, especially for China which has a large current account surplus. India, however, has a deficit and this makes the growth of outward FDI from India less certain. Among Asia-16, several other countries also have larger outward FDI than India.

From Figures 3a and 3b we may also observe the asymmetry between the USA and the EU-27: EU has steadily expanded its FDI but there is a strong decline for the USA during the last decade. For the EU, intra-European investment is a key driver.

In Chapter 5 we also show that a very large share of China's inward FDI is intra-Asian. It is likely that some of this is indirectly from outside Asia; using other Asian countries as hubs for investment in China. A closer look at company structures and the use of holding companies would be of interest; this is however outside the scope of this study.

2.4. Asia and global value chains: Trade in value added

As noted above, FDI and NEF are the two major forms of linking Asia's economy to GVCs (global value chains). UNCTAD (2013, 138) shows that the FDI inward stock is a strong predictor about countries' participation in GVCs. The presence of FDI in Asian GVCs implies that a lot of cross-border trade is intra-firm trade: According to UNCTAD (ibid., 135), 80 % of world trade is related to multinational enterprises (MNEs); in the form of intra-firm trade, or NEF (non-equity forms such as franchising, licensing etc.) transactions, or arms-length transactions. The report contains some information on Asia (ibid., 136):

- In China, foreign affiliates accounted for 50% of exports and 48% of imports in 2012.
- In Japan, national MNEs accounted for 85% of exports of goods and services, and foreign affiliates another 8%.
- Japenese MNEs export about 40% of their goods and services to their own affiliates abroad.
- Intra-firm traded generally accounts for 30% of a country's exports, with large variation across countries.

Evidence is more systematic concerning the use of imported inputs in production for exports. The general point here is that gross trade flows imply a double-counting of trade due to the use of imported inputs. For example, Thailand's automobile industry imports many components from other countries, and the gross value of a car therefore includes value added created in other countries. Since trade in components is doble-counted, an effort has recently been made to "clean out" this double-counting in order to provide evidence on "trade in value added". Different initiatives exist for this purpose, e.g. UNCTAD has its own database (UNCTAD-Eora GVC database); there is the TiVA (Trade in Value Added) from the WTO/OECD and available on their

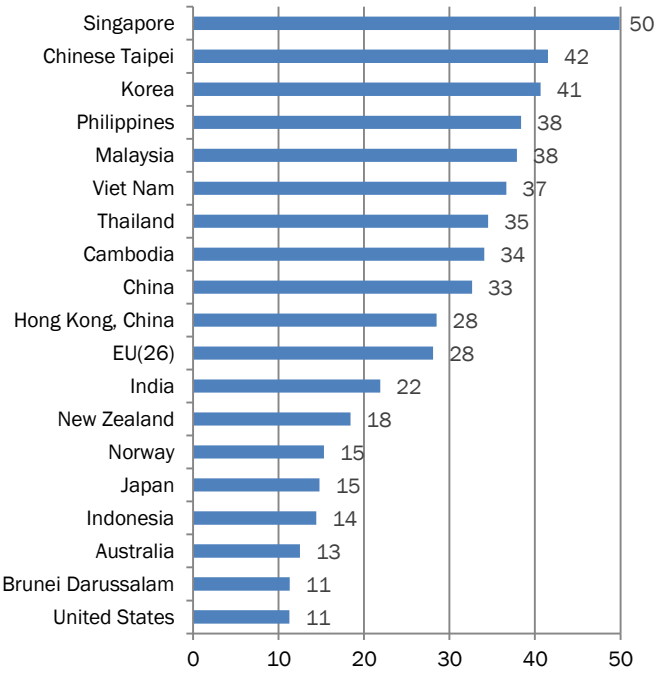
website; and some data are available on the web page of WIOD (World Input-Output Database, www.wiod.org), built on a recent EU research project (for info, see Timmer et al. 2012). We will here use an illustration based on TiVA, since 16 out of Asia-19 are included. Figure 5 shows the foreign value added share of gross exports for these 16 countries, plus Norway, USA and an average for Norway based on data for 26 EU countries.

This shows how much of e.g. Norway's exports that is not "Made in Norway" but made abroad. This share is influenced by various aspects (see e.g. UNCTAD 2013 for a discussion):

- The sector composition of exports; commodity producers typically do not import many components. On the other hand, this share may be very large for e.g. cars and electronics. For example, 75% of the value added in the Thai automotive industry is made abroad.
- Large countries may have lower shares, since their value chains may be more domestic.
- The extent of FDI or NEF involvement in value chains: This has increased over time, also increasing the share of foreign components in production.

Fig. 5: The share of foreign value added in gross exports (%), 2009

Data source: TiVA database of OECD/WTO.



In line with this, we find low foreign shares for commodity exporters such as Australia, Norway and New Zealand, and for the USA which is a large country. EU is intermediate, with a considerable share of foreign value added, probably due to large intra-European FDI. Asian countries generally have high shares, with Singapore (also an entrepot trader, in addition to large FDI and small size) on top. China is an intermediate case, and India lower. Both are large countries but according to several sources, India is weakly integrated in the Asian value chains (Sen et al. 2012).

The calculation of such figures is a very challenging task and without going into detail on the technicalities, it may be noted that existing estimates vary considerably for the same countries; e.g. UNCTAD (2013, 133) put Singapore at 64% and India at 10% (for 2010), deviating from the TiVA results. The figures should therefore be considered as rough indications rather than precise measures.

An issue is whether the foreign share of value added is intra-regional or sourced from other continents. According to UNCTAD (2013, 132), 42% of the GVC trade flows of East and South-East Asia are intra-regional. Another proxy can be obtained from the regional distribution of FDI. Appendix Table 3 shows regional distribution of greenfield investment in East and South East Asia in 2011-2012. About half of inward FDI was from Asia-19, with Japan as the largest investor. This evidence suggests that about half, or a bit less, of Asia's sourcing of inputs is intra-Asian.

As a result of the growing role international production networks and trade in intermediate goods, Asia has a trade pattern that differs from Europe: a considerable part of intra-Asian trade growth is due to trade in intermediate and capital goods, not consumer goods. Using UNCTAD's classification of trade into raw materials, intermediates, consumer goods and capital goods[5], Table 1 shows the pattern of trade in 2010, and growth rates 2000-2010 for each flow.[6]

[5] Classifying goods in this way is not an easy task and a brief comment on this is warranted: Parts and final goods are often classified together in the same item of the classification, so one cannot distinguish intermediates from the final product. Second; a product, say a car, may be used as an input into production or as a private consumption goods. Hence the classification made by UNCTAD should be considered as a rough approximation. Observe also that many mechanical components, e.g. car bumpers or gear boxes, are classified as capital goods by UNCTAD, and not as intermediates.

[6] The years 2000 and 2010 are chosen due to better ccountry coverage of data. All EU-27 countries are included. For Asia, Brunei, Lao PDR and Myanmar are missing but Hong Kong, Macao and Tawan are included; i.e. data covers 16 countries among Asia-19.

Table 1: Trade in goods: Trade patterns of Asia-16 and EU-27, 2000 and 2010
ROW=Rest of the World

Shares of intra- and extra-regional trade in total trade for each product (%)

	Intra-Asia 16		Asia-16 with ROW		Intra-EU		EU with ROW	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Raw materials	78	28	22	72	75	30	25	70
Intermediate goods	63	57	37	43	66	67	34	33
Consumer goods	41	63	59	37	66	61	34	39
Capital goods	55	72	45	28	56	57	44	43
Total trade	54	57	46	43	64	58	36	42

Trade composition: share of each product for each trade flow (%)

	Intra-Asia 16		Asia-16 with ROW		Intra-EU		EU with ROW	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Raw materials	10	11	3	37	7	7	4	22
Intermediate goods	23	22	16	22	22	24	20	16
Consumer goods	22	22	38	17	38	37	34	32
Capital goods	43	44	41	23	28	26	38	27
Total trade	100	100	100	100	100	100	100	100

Annual growth of trade 2000-2010 (%)

	Intra-Asia 16		Asia-16 with ROW		Intra-EU		EU with ROW	
	Exports	Imports	Exports	Imports	Exports	Imports	Exports	Imports
Raw materials	12.4	12.2	7.0	12.0	6.0	4.6	4.2	7.1
Intermediate goods	9.5	8.3	9.9	8.9	4.1	4.3	5.2	5.2
Consumer goods	9.1	7.3	8.3	8.3	4.7	4.8	6.5	7.8
Capital goods	9.0	9.0	6.2	4.1	2.5	2.6	5.2	3.1
Total trade	9.5	8.8	7.6	8.4	3.9	3.9	5.7	5.6

Source: Own calculations based on data from WITS/COMTRADE.

From the bottom row, it is evident that Asia's trade in goods grew much faster than that of Europe, and the component with most rapid growth was intra-Asian trade. More than half of exports and imports are now intra-Asian. Whereas 64% of the exports of EU-27 in 2010 were intra-regional, the corresponding share for Asia is 54%.

A major difference between Asia-16 and EU-27 is that consumer goods has a lower share of intra-regional trade; with a correspondingly higher share for capital goods (including mechanical components, see footnote 2). This is illustrated by the shaded cells in the table, and is an illustration of the importance of international production networks in the region.

The table also illustrates the rapid growth in Asia's trade and consumption for raw materials; this was the product group with fastest growth in 2000-2010. Here it should be recalled that trade growth rates in Table 1 are based on value, and therefore also driven by commodity price increases during the period.

It should be recalled that inputs, domestic or foreign, are not only physical components but also services. A growing share of GVCs is in services. As known from the WTO terminology, services can be traded internationally via different modes, where direct cross-border trade (such as a

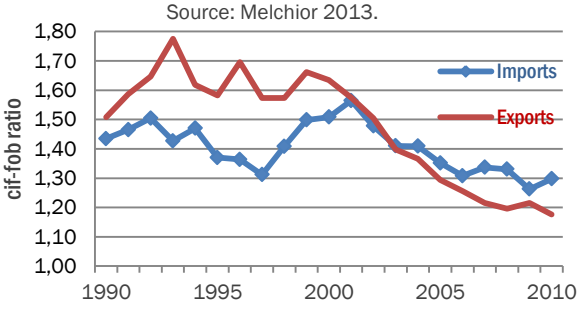
telephone call, or transport services) is one important mode, and trade via affiliates or FDI is another. In this perspective it is important that a large and growing share of FDI in Asia is in services sectors. Appendix Table 4 shows the sector composition of greenfield FDI in 2011-2012, and shows that more than half of inward as well as outward FDI in East and South East Asia in 2012 was in services. According to UNCTAD (2013, 156) "more than half of value added in exports comes from service-related activities, which is more than twice the share of services in worldwide gross exports".

Observe also that GVCs do not stop at the border of the exporting country; it extends to the consumer in the destination market, and various services may be added on the way. For Norway as a shipping nation, this is particularly important and we will see in Chapter 4 that transport services exports, related to Asia's trade in goods, is an important aspect of Norway's relations to Asia.

For trade in goods, transport costs are reflected in the so-called "cif-fob margin: Imports are reported in the importing country on a "cif" (cost, insurance, freight) basis, while exports are reported "fob" (free on board) in the exporting country; i.e. excluding transport costs. Using "mirror data" (comparing figures reported by the two trade partners), we can construct these ratios. Ww expect the cif-fob ratio to be somewhat above 1 since transport and possibly other services are added on the way. The expectation is nevertheless that the ratio should not be very large; transport costs are often below 10% and insurance cost is normally modest in comparison. For years, the IMF used 10 % as a rule of thumb for filling in missing observations in their balance-of-payments statistics.

In this perspective, it is shocking to take a look at real mirror data; the cif-fob ratios vary wildly and for some countries, they are consistently far higher than 1.1. As an illustration for Asia, Figure 6, based on Melchior (2013, forthcoming) shows average cif-fob ratios for trade with China during 1990-2010, for about 100 countries.[7] The average values were very high until about 2000; around 1.6 for China's exports and 1.4 for imports. Later, the value has fallen to 1.2-1.3. One possibility is that China has moved "up the GVC" and taken over more of the services production, and this is reflected in the export value. With China's trade at 3724 billion USD in 2012, 25% amounts to almost 1000 billion USD. Is this transport costs, statistical error, payment for other services, or trade mispricing? The interesting issue is what

Fig. 6: cif-fob ratios for China's trade
Average values across trade partners.
Source: Melchior 2013.



[7] The number of countries depends on data availability and varies from 75 to 154 countries over the period, so some (a modest part) of the variation over time may be due to changing country coverage. See Melchior (2013) for details.

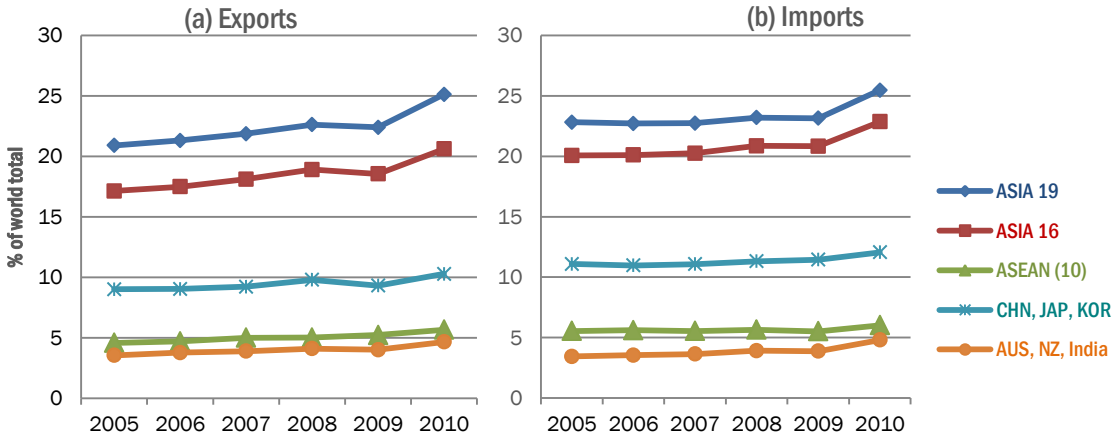
explains these high ratios, since average transport costs are hardly in that range. In Chapter 4 (section 4.8) we will examine Norway's trade with Asia and present some new evidence.

A possibility with ever more important GVCs is that MNEs can undertake transfer pricing or trade mispricing in order to avoid taxes or tariffs, or to transfer money. Or prices may be adjusted as goods are sold via middlemen. Adjusting trade prices is a powerful method to transfer money across borders. According to UNCTAD (2013, 156), the growing share of services in GVCs makes it difficult to control for trade mispricing: The price of a physical good may often be checked but services prices are more tricky. With the large role of FDI in Asian GVCs, an important issue is what the owners do with profits from their activity; are these reinvested or repatriated to other countries? While a limited part of value added (1/20 of value added, according to UNCTAD (2013, 154)) is repatriated, it is possible that more is transferred via trade transactions. That, however, is mere speculation.

2.5. Asia in world trade in services

Apart from its role in GVCs, Asia's services trade is also a component of growing importance in their trade. As noted above, a significant share of Asian FDI, inward and outward, is in services, so a considerable part of services trade occurs in this mode. In addition, there is growing direct trade, ranging from tourism to information technology services. Also for services, Asia's share has increased over time. Due to variable data availability, we present only a short time series (Fig. 7).

Fig. 7: Asia – share of world services trade 2005-2010. Data source: IMF and national sources.



Recalling that Asia had about 31% if world trade in goods in 2010 (see e.g. Appendix Table 1), Fig. 7 shows that Asia's share in world services trade was a bit lower, but increasing over time. Also for services, China, Japan and Korea have a large share of Asia's trade; about double of ASEAN.

Considering individual Asian countries, Table 2 shows trade in commercial services by country. Appendix Table 5 presents more detailed evidence on services trade by sector. The largest

services exporter is China, followed by India, Japan, Singapore and Hong Kong. The share of services in goods+services trade varies substantially across countries, with China at 9-13% among the lowest. For India, that has missed out on some of the opportunities in manufacturing production and trade, an issue is whether the surplus in services is larger than the deficit in manufacturing. From this perspective it is good to see from Table 2 that India, Hong Kong and Macao have significant trade surpluses in services. However, for India it is unfortunately not large enough to compensate for a much larger deficit in goods trade.

Table 2: The services trade of Asian countries, 2011 (million USD)

	Services trade 2011			Goods trade balance	Services as % of goods+services trade	
	Exports	Imports	Balance		Exports	Imports
Australia	51852	60994	-9142	35912	16	21
Brunei	915	1434	-519	9429	7	29
Cambodia				576	n.a.	n.a.
China	184763	238909	-54146	277608	9	13
Hong Kong	91497	74259	17238	-494008	84	13
India	138528	125041	13487	-160920	31	21
Indonesia	21844	31519	-9675	26252	10	15
Japan	137350	175780	-38430	-32197	14	17
Korea, Rep.	95257	101107	-5850	30804	15	16
Lao PDR	550	331	219	n.a.	n.a.	n.a.
Macao SAR	40027	10693	29334	-7475	99	58
Malaysia	36145	38174	-2029	39448	14	17
Myanmar	672	1090	-419	3461	8	21
New Zealand	11212	11869	-657	279	24	25
Philippines	17858	12575	5283	-15651	27	16
Singapore	116160	115466	694	43733	22	24
Taiwan	45920	42026	3894	10230	14	13
Thailand	41573	52136	-10563	2642	15	19
Viet Nam	8879	11859	-2980	-9844	8	10
Asia (16)	*871706*	*833540*	*38167*	*-239721*	*14*	*13*
ASEAN (9)	*244596*	*264584*	*-19989*	*100046*	*16*	*19*
China/Japan/Korea	*417370*	*515796*	*-98426*	*276215*	*11*	*15*
AUS NZ India	*201592*	*197904*	*3688*	*-124729*	*25*	*21*
HK, Macao, TWN	*177444*	*126978*	*50466*	*-491253*	*37*	*14*

Data source: Services data from IMF, downloaded from CEIC-data. Goods trade data from WITS/COMTRADE. Note: For some countries, deviating years have been used: Brunei: services 2009, goods 2012. Macao: goods 2012. Myanmar: goods 2010.

The services sector is a major contributor to income growth as well as job creation; e.g. even in China, more jobs were created in services than in manufacturing (180 vs. 100 mill.). A major issue for Asia is that services productivity is far below the OECD level (Noland et al. 2012). Within countries, there may also be huge variation in productivity; e.g. India is the world's leading exporter of Computer and related services, but at the same time has a massive "informal" services sector with low income levels and productivity. Also in Asia, the share of services in GDP

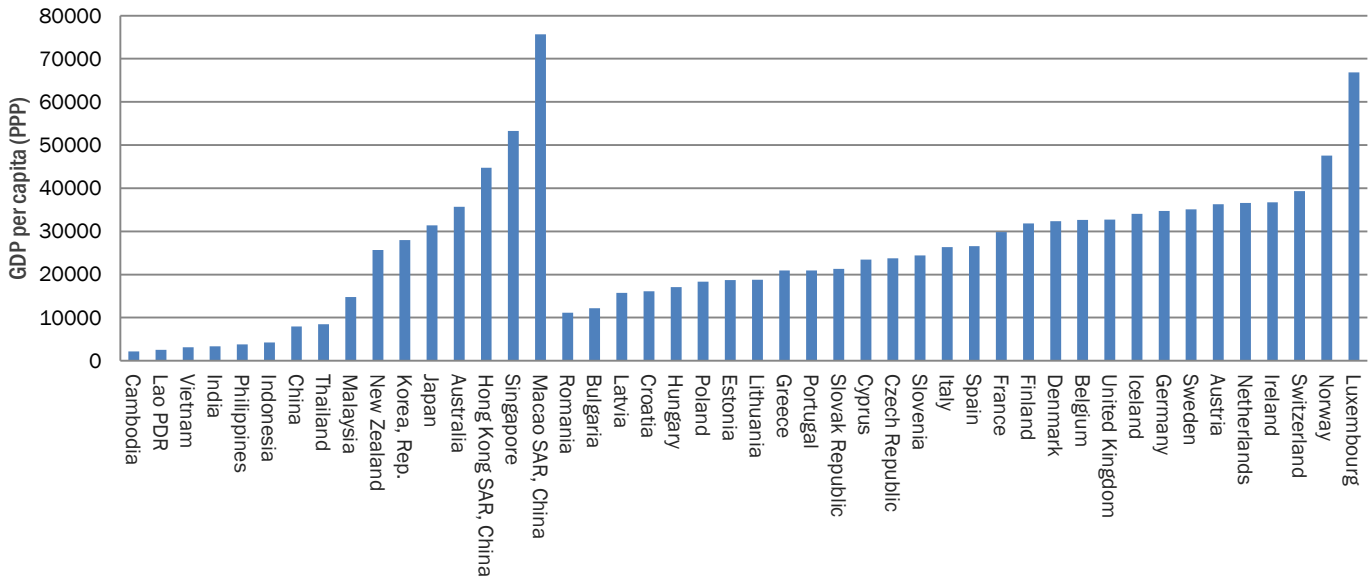
increases with income levels, but there is large heterogeneity across countries – with e.g. Brunei below 40% and Singapore above 70%. For an overview, see Noland et al. 2012. According to Park (2012), developing country Asia remains trapped in traditional services with limited potential for value addition. Even advanced nations such as Korea have relatively low productivity in services, in spite of their efficiency and success in manufacturing. In the context of international trade, it may also be noted that several countries in developing Asia are among the most restrictive when it comes to trade protection (ibid.).

3: The heterogeneity of Asia: growth – and convergence?

3.1. Asian heterogeneity

In Chapter 2, we have given an overall portrait of Asia and its phenomenal growth and development. It is important to recall that there is considerable variation across countries. In this Chapter, we will take a look at this variation: Have the poorest caught up with the richer ones? Will the success stories continue, or will they slow down and end in the "middle income trap" like some emerging countries have done in the past, e.g. in South America? As an illustration of the diversity of Asia, Figure 8 shows per capita income in 2012 for a selection of countries in Asia-19 and EU/EEA where data were available.[8]

Fig. 8: Income level ranges in Asia-19/16 versus EU/EEA



The greater disparities within Asia are evident: The richest countries in Asia are at par with the richest in Western Europe, but the poorest countries in EU/EEA are three times richer than several major Asian countries and are still above China. The relative differences in Asia are in fact even larger for economic size, where e.g. China and Japan in 2012 were 900 and 640 times larger than Laos, respectively! Within Western Europe, small countries have been given larger than proportional voting power in EU bodies. This is perhaps more difficult when differences become so large.

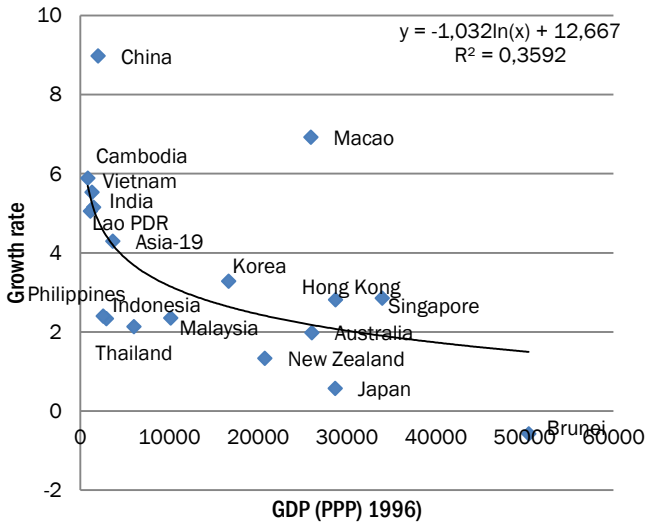
Have income level differences within Asia decreased or increased over time? Figure 9 plots growth rates 1996-2012 against initial income levels, and suggests that the differences

[8] Data from World Development Indicators/World Bank, downloaded November 2013.

decreased: there was income convergence. The diagram compares GDP per capita (PPP) annual growth rates 1996-2012 (vertical axis) and the initial income level in 1996 (horizontal axis).

There was on the whole significant convergence over the period, with poor countries growing faster. Appendix Table 6 reports regression analysis of convergence in more detail. We find that there are clear signs of convergence using different approaches, particularly in the period after 2000. As seen from Fig. 9, China led the pack, whereas some important ASEAN countries (Thailand, Malaysia, Indonesia, Philippines) had slower growth during the period. Macao, influenced by China, tourism and casinos, was an outlier.

Fig. 9: Income convergence within Asia 1996-2012
Source: Calculated from data from World Development Indicators.



Will this process of growth and convergence continue, or is there a danger of some countries falling behind? In Fig. 9, some of the countries with modest income levels also had more modest growth (Philippines, Indonesia, Thailand, Malaysia). Will these countries also take off or will they lag behind? Among the success stories, we have also seen that e.g. India struggles with competitive performance in manufacturing, and is weakly embedded in Asian production networks. For China, there is a consensus that the growth path of the past, relying on low-or medium-skill manufacturing, can not sustain similar growth rates in the future. Hence GDP growth rates for China are expected to fall, and further growth depends on China's ability to develop its skills and upgrade technologies. According to World Bank/DRC (2012), China's GDP growth rate is expected to fall gradually towards 5% in 2030. There is nothing dramatic in this; 5% is still significant growth and one simply cannot grow at 9-10% forever.

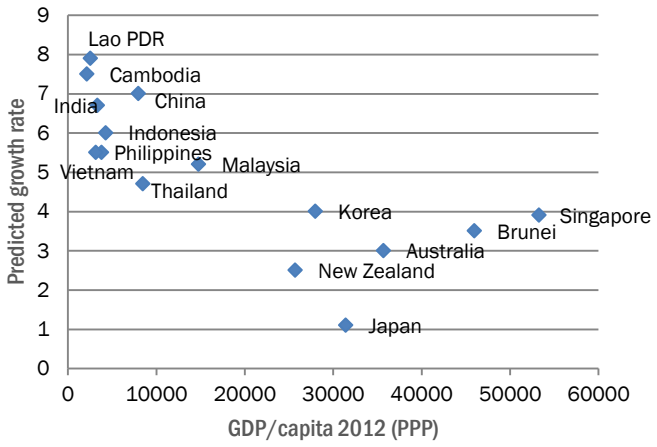
3.2. Medium-term forecasts and their implications

Foreseeing the future is a difficult endeavour, but this chapter will examine some indicators and trends.Table 3 shows the growth forecasts from IMF, OECD, ADB, EIU for 2018 for the first two and 2014 for the third and 2017 for the latter. It seems the four organizations to a large extent agree on their growth forecasts, which may reflect that they use fairly similar tools to predict growth. Brunei and Singapore are expected to have 2-3 % annual growth whereas the poorer countries are expected to maintain growth levels well above 5 % with China, Laos and Cambodia having the highest numbers approaching 8 %.

Table 3: Predicted growth levels (Source: IMF, OECD, ADB, EIU)				
Country	IMF 2018	OECD 2018	ADB 2014	EIU 2017
Australia	3.0			3.1
Brunei Darussalam	3.5	2.4	2.0	
China	7.0	7.5	8.0	6.3
Indonesia	6.0	6.1	6.6	6.3
India	6.7	6.1	6.5	6.5
Japan	1.1			1.1
Cambodia	7.5	7.1	7.5	
Korea	4.0			4.2
Lao P.D.R.	7.9	7.5	7.7	
Myanmar	7.1	7.0	6.7	
Malaysia	5.2	5.3	5.5	5.7
New Zealand	2.5			2.9
Philippines	5.5	5.9	5.9	5.7
Singapore	3.9	3.1	3.7	4.9
Thailand	4.7	5.3	5.0	5.4
Vietnam	5.5	6.0	5.6	6.3

Fig. 10 plots the IMF forecast against current income levels (GDP/capita 2012, PPP). The figure resembles Fig. 9.[9] Also, with the exception of Singapore and Brunei whose succeses can hardly be replicated, there is a strong pattern of convergence where all the lower left outliers have been lifted: no growth failures at the lower end. Philippines, Indonesia, Malaysia, Thailand are lifted, whereas China has been reduced to 7%. These forecasts nevertheless suggest continued convergence in Asia, with higher growth at the lower end if the income range. Hence this is a "harmonious" prediction about future growth.

Fig. 10: IMF growth forecast 2018 vs. GDP/capita 2012.
Data source: IMF.



As a hypothetical experiment, let us assume that these growth rates will continue until 2025. What will be the implications for Asia as a whole, and its role in the world economy? For China, we use the predicted growth rates from World Bank /DRC 2012; assuming that China's GDP growth will gradually be reduced to 5% in 2030. The result is that the nominal GDP of Asia-16 will grow by 81% from 2012 to 2025, and its share of world GDP will increase from 27.8 to 29.3 %. This expansion is even more impressive if we exclude Japan: For Asia-15 without Japan, GDP is more than doubled and the share of world GDP rises from 19.5 to 24.3 %. Growth in this order

[9] Myanmar is not included in the two graphs since PPP income data is missing.

will apply to China as well as ASEAN and India. While such extrapolations are uncertain and should be treated with caution, they illustrate that Asia, especially emerging Asia, is likely to increase further its share in the world economy.

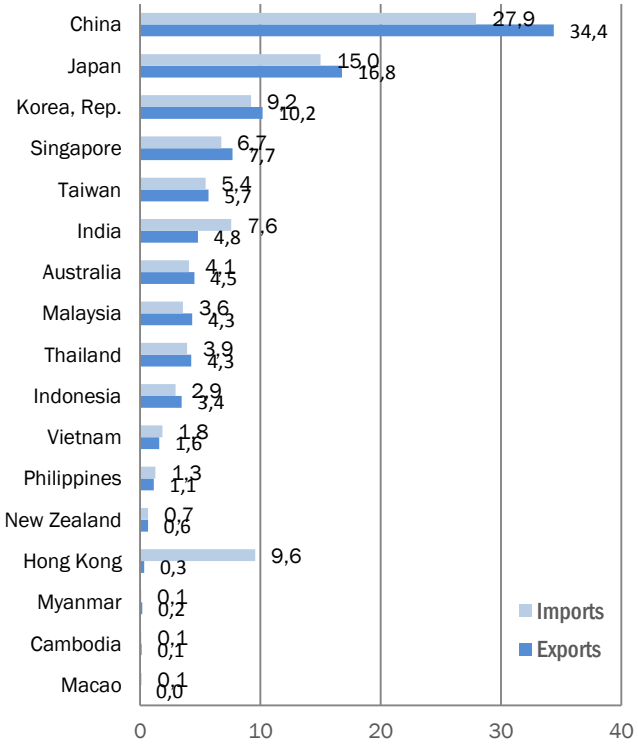
3.3. Economic growth and structural change in manufacturing

Asia faces two types of growth problems: At the lower end, there is the potential for "dropouts" that do not succeed in structural transformation or who are trapped in low growth because of weak institutions or other other bottlenecks. In the intermediate range, there is the "middle income trap" – when the scope for "extensive" growth based on labour force growth and capital accumulation in low- or medium-tech industries. This is a challenge faced by e.g. China; hence the expectation of gradually lower growth rates in the future.

To a large extent, the "dropout problem" and the "middle income trap" are just two parts of a continuum; about productive capacity, skill upgrading and structural change. Indeed Asia has been characterised by fast structural change, with several countries starting with labour-intensive production and gradually transforming into other industries. An interesting question is therefore how Asian countries along the income distribution have fared recently: Have they climbed the ladder as we would expect? According to Lie (2012), an empirical study building on the Japanese economist Akamatsu (1932), several manufacturing sectors has an an inverse U-shaped relationship to income: production and exports increase until a certain income level and thereafter falls. According to this, there will be structural change as countries grow, with corresponding changes in industrial structure.

In order to shed light on the country and product pattern of trade specialization in Asia, we use a slightly different classification of goods into eight main sectors; sometimes aggregated further to three or four sectors. This classification is shown in Appendix Table 7. Using this classification, Appendix Tables 8-10 show the sector and country composition of Asia's trade, as well as the growth rates for each trade flow during 2000-2010. Table 10 shows the country shares and growth rates of trade by country, split into intra- and extra-Asian trade.

Figure 11: Asia's biggest traders 2010
(% of Asia-17 total)
Source: Calculated based on data from WITS/COMTRADE.



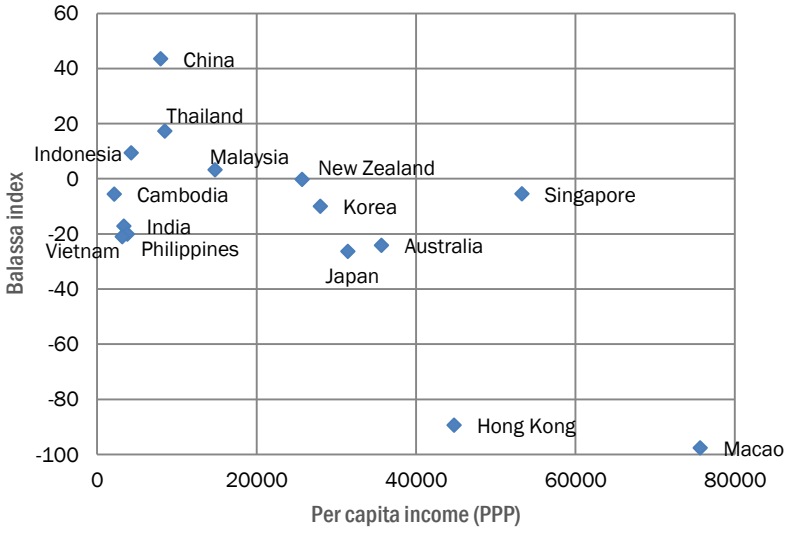
In order to get the proportions right, observe from Figure 11 that a few countries represent a large share of Asia's trade. China, Japan and Korea are clearly the largest traders in goods, with a combined share of 61.4% of exports and 52.1% of imports in 2010. Japan's share has however fallen sharply over time; from 29.7/23.6% of exports/imports in 2000 to 16.8/15.0% in 2010. Observe that contrary to other city states or entities, Singapore is a major manufacturing exporter with a strong position in intra-Asian production networks. At the other end, Hong Kong has almost abandoned manufacturing but maintained a role as a major importer. Given that Hong Kong is a well known entrepot for China's trade, a cautionary note is that its imports may include trade that is destined for China.

Appendix Table 10 differentiates between intra- and extra Asian trade and shows that for the majority of countries, the share in intra-Asian exports is higher than in extra-Asian exports. The counterbalance here is China, for which exports to the rest of the world is more important.

Some countries stand out with particularly high export growth: China, India, Vietnam, Cambodia and Australia. For India, however, imports grew even faster, especially from other Asian countries. For this reason, India has developed a considerable trade deficit with Asia, especially for trade in machinery. But even for some labour-intensive industries, India has a trade deficit.

For describing the performance of individual countries by sector, a useful measure is the Balassa index or net export ratio, which has the form 100*(x-m)/(x+m), where x denotes exports and y imports. This index varies from -100 (only imports) to 100 (only exports), and equals 0 if trade is balanced (imports and exports are equal).[10] Figures 12 and 13 plot such indexes vs. per capita income levels, for two aggregated sectors; machinery and transport equipment, and light industries (textiles and other industries) (see Appendix Table 7 for definitions). This aggregation is somewhat crude but serves the purpose of providing a compact summary measure of specialization and change. Building on earlier literature, we expect low-income countries to have better export performance in light (labor-intensive)

Fig. 12: Income level and specialization in intra-Asian trade 2010: Light industries



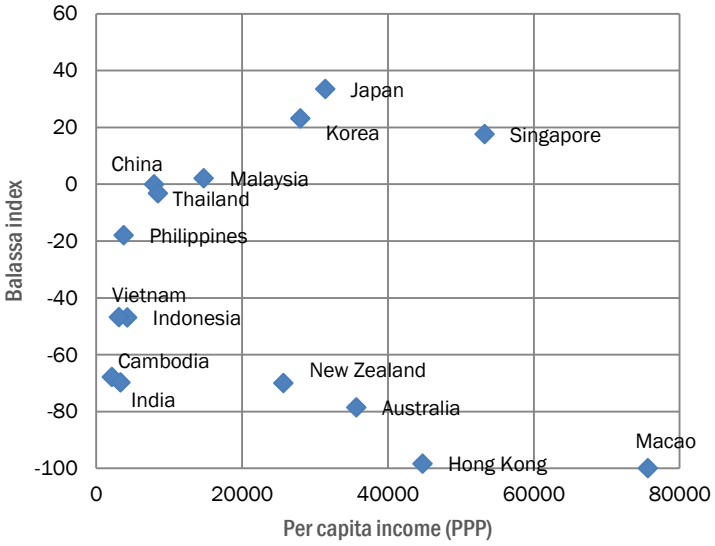
[10] Observe that this index is naturally biased to be negative since exports are reported "free on board" while cost, insurance and freight are included in import figures that are reported "cif". For example, if the transport cost or cif-fob difference is 10% we will have a Balassa index for a balanced trade flow at -0.05.

industries, and the relationship may be the opposite for more capital- or skill-intensive industries. These may be U-shaped relationships, with a peak at some specific income level (that may change over time because of technological change).

Starting from the lower end, Fig. 12 shows specialization in intra-Asian trade for light industries in 2010. There is an inverse U-shaped relationship, which is actually statistically significant (p=.01) according to the Lind/Mehlum test.[11] It seems the Balassa index for trade in light industries is highest for income levels around 8840 PPP$, i.e. around the income level of China and Thailand. There are only a handful of countries being net exporters: Indonesia, China, Thailand, Malaysia. At the lower left we find Cambodia, India, Philippines and Vietnam as net importers, together with richer countries – ranging from Korea to Macao. Among the low-income net importers, Philippines also had slow growth in GDP as well as trade (cf. Chapter 2 and Table 1); the other three had particularly fast trade growth as well as GDP growth; the issue is that imports grew faster than exports.

For machinery and transport equipment, Fig. 13 shows a different pattern: The richer countries are split in two: Japan, Korea and Singapore have the highest value of the Balassa index, showing a positive relationship between export performance and income levels, perhaps also here with a U-curve emerging, with a peak for Korea and Japan.[12] Rich but easy-to-interpret outliers are the cities Hong Kong and Macao which have become pure importers and services exporters, and the commodity producers New Zealand and Australia. For the remaining observations, there is a positive relationship; with the net export ratio rising with income.

Fig. 13: Income level vs.specialization in intra-Asian trade 2010: Machinery and transport equipment



Figures 12 and 13 show a static picture, and there may be many idiosyncratic features that affects the ranking of a country, e.g. the special features of city states (Hong Kong and Macao, services traders) or commodity traders (Australia, New Zealand) or services exporters (India). In order to confirm the relationship statistically, we should preferably use a larger sample to correct

[11] This is a statistical test for the existence of such a U-shaped relationship.

[12] From a statistical point of view, there is also in this case a significant (p=.03) inverted U-shaped relationship between the Balassa index and log per capita income.

for other aspects, and such analysis is beyond the scope of this report. As a shortcut, however, we will consider the changes in specialization during 2000-2010, to see if this sheds light on whether countries succeed with industrial transformation. Table 4 shows the change in Balassa indexes during 2000-2010, for the two sectors and the residual group (commodities):

Table 4: Net trade ratios (Balassa indexes) for 15 countries among Asia-19.

	Intra-Asian trade						Trade with rest of the world (ROW)					
	Balassa indexes 2000			Change 2000-2010			Balassa indexes 2000			Change 2000-2010		
	Mach/ transp.	Light	Comm-odities	Mach/ transp.	Light	Comm-odities	Mach/ transp.	Light	Comm-odities	Mach/ transp.	Light	Comm-odities
Asia (15)	-5	-13	-4	1	9	2	30	31	-45	5	8	-1
Australia	-66	-11	59	-13	-13	2	-57	-33	17	-5	6	-23
China	-15	31	-18	14	12	-15	11	68	-37	35	3	-17
Hong Kong	-89	-86	-89	-9	-4	1	-73	-17	-94	-21	-59	-2
Indonesia	10	44	37	-57	-34	-10	6	72	-15	-33	-4	6
India	-67	29	-10	-3	-46	-2	-28	25	-38	21	-29	5
Japan	38	-35	-17	-5	9	15	58	-21	-57	4	21	-9
Cambodia	-92	-26	-94	24	20	3	-91	89	-93	74	-5	68
Korea, Rep.	2	20	-3	21	-30	-5	37	33	-69	15	-20	7
Malaysia	0	9	12	2	-6	7	20	48	-16	-11	-3	12
New Zealand	-66	10	26	-4	-10	-3	-69	1	22	9	-22	7
Taiwan	-6	35	-15	25	-22	12	24	55	-61	-2	-9	0
Philippines	7	-45	-40	-25	25	45	27	65	-69	-19	-23	46
Singapore	-2	-28	24	19	23	-7	19	-5	-41	-22	-16	21
Thailand	-8	1	8	5	17	-10	23	51	-20	21	-15	-15
Vietnam	-57	-21	5	10	0	-30	-65	75	18	61	-1	-19

Source: Own calculations based on data from WITS/COMTRADE.

A consistent pattern of upgrading from light industries to machinery would be to have a positive value for machinery and transport equipment, and a negative value for light industries. A weaker version would be to have a clearly more positive development for machinery than for light industries. The shaded cells show these cases. Only for Korea and Vietnam is there marked upgrading for intra- as well as extra-Asian trade. Indications of upgrading are also found for Taiwan (intra-Asian trade) India, Cambodia, Thailand and China (extra-Asian trade only). In spite of moving up the industrial ladder, China is even improving its trade balance for the light industries at the same time. While India had an improving exports of machinery equipment to ROW, its manufacturing balance in Asia is weaker, with light industry goods flowing in without compensating gains for machinery.

Some countries do much better in intra-Asian trade than in trade with ROW (Malaysia, Singapore, Thailand); whereas others perform better in trade with ROW: Australia, India, Indonesia, partly the Philippines. For some countries, the switch between intra- and extra-regional trade is more significant. Probably due to the Asian production networks, Singapore has improved its manufacturing performance within Asia, but with the opposite development in trade with ROW. The opposite seems to be the case for Indonesia, where there was a dramatic

deterioration of the intra-Asian trade balance, from surplus to deficits. In trade with ROW, however, Indonesia still has a considerable surplus for light industries.

In the former growth analysis, Indonesia, Malaysia, Thailand and the Philippines were "question marks" with less impressive growth among the relatively less wealthy countries. The analysis here indicates that Malaysia and Thailand performed well, but more question marks are added for Indonesia and the Philippines. India has structural change in the right direction but on the other hand, overall manufacturing exports are not impressive – as also seen in Chapter 2. Another "problem" is that China performs "too well" in the light industries, with more exports than expected from its income level, and this may limit light industry expansion in other countries. One possible explanation is that China is like 31 countries and not one; so new provinces may expand in the light industries when the richer ones along the coast upgrade to more skill-intensive production.

From another angle, observe also that Indonesia and the Philippines had a negative correlation between trade openness and economic growth during the last decade (Fig. 13).[13]

Fig. 13a: Indonesia - income growth vs. trade openness

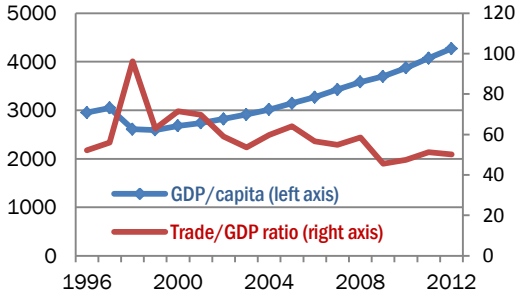
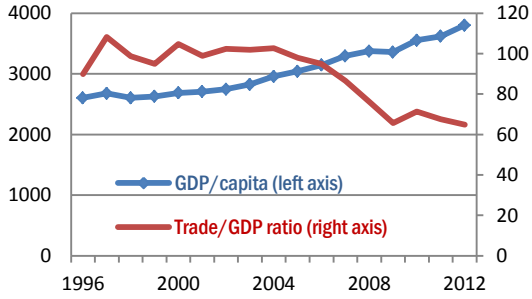


Fig. 13b: Philippines - income growth vs. trade openness



While most other Asian countries had a clear positive correlation between the two variables, with income levels and trade openness increasing in parallel, Indonesia and the Philippines (and to some extent Malaysia) are exceptions.

3.4. Long-term determinants of growth, and the middle-income trap

As a third approach concerning growth performance and prospects, we will consider long-term determinants of growth and the ability of countries to avoid the middle-income trap.

The typical example of the "middle income trap" is a number of Latin American countries that grew and reached middle income levels, but then stagnated. For some Asian countries, a challenge is that the strategies employed to reach middle income levels are no longer viable to go beyond this level. Countries that have had prosperous exporting industries due to an abundance of cheap labor cannot continue paying minuscule wages when average incomes

[13] Data source: World Development Indicators online. GDP per capita is PPP, 2005 international $. The trade variable is exports + imports of goods and services/GDP, based on value data in current USD.

increase unless inequality is to skyrocket. If the workers are to take part in the increased prosperity of the country, wages necessarily have to increase. This means that labor becomes less cheap, and the competitive advantage is eroded.

The solution to escaping the middle income trap is to increase productivity and use high productivity instead of cheap labor as the competitive advantage. There are several ways to do so. One way is to accumulate more capital. When more capital is available per worker, productivity goes up. However, this is only an efficient policy up to a certain limit. A better policy may be to increase the human capital of the average worker. Better educated workers are more productive and better able to employ advanced production techniques. Moreover, enhanced infrastructure facilitates specialization and is believed to be a key driver of transition into high productivity. Finally, to reach the global frontier, and active R&D sector is necessary, but may not necessarily yet be a key determinant of success for the poorer Asian countries.

Table 5 shows some indicators of countries' potential to escape the middle income trap and maintain high growth levels. Savings rates, here measured as gross saving, are a key determinant of investments in physical capital, and are high in most countries. China's savings rate of about 50 % is of course very high. But the levels above 30 % seen in many countries are higher than most countries. The OECD average, for instance, is about 17 %.

Regarding human capital investments, primary enrollment rates are high in all countries. Although some of the poorer countries have modest literacy rates, literacy rates among the young (people aged 15-25) are reasonable high in all countries with India as a potential exception. Secondary enrollment is weak in Cambodia, and also fairly weak in Myanmar and India. Tertiary enrollment is still low in many of the poorer countries including China, but is quite high in Thailand and Malaysia as well as the rich countries. This implies that most of the countries should have a labor force with basic schooling, but many of the countries may lack a substantial labor force with higher education.

One measure of the quality of infrastructure is simply the amount of roads. As larger countries naturally have more roads than smaller countries, we report the number of km of roads per 1000 km^2 of land area. Notice that densely populated areas would have high numbers on this measure, explaining e.g. Singapore's very high score as well as Australia's low score. Still we see that the road density in Cambodia, Laos, and Myanmar are so low that access to transportation is likely to be an obstacle to sustained economic development. Next, a measure of the fraction of roads that are paved is presented. Some of the caveats related to population density apply here as well. The conclusions are fairly similar, although the Philippines also have a large share of unpaved roads. As one would expect, the richer countries have more motorized vehicles per 1000 persons, and again Myanmar, Laos and Cambodia stand out with the lowest numbers.

Regarding internet usage, which may also be seen as a measure of infrastructure development, Myanmar has very low shares together with Cambodia. The shares in China and particularly Vietnam are high relative to the income level of the countries.

Table 5: Variables affecting the potential for escaping the middle income trap.
Data source: World Development Indicators. Data for 2012.

	Austra-lia	Brunei Darus.	Cam-bodia	China	India	Indo-nesia	Japan	Korea, Rep.	Lao PDR	Malaysia	Myan-mar	New Zealand	Philip-pines	Singa-pore	Thai-land	Viet-nam
Variables related to investments in physical and human capital																
Gross savings	24.53	50.90	10.61	52.67	31.43	34.66	21.93	31.55	17.35	34.61		15.99	23.15	45.58	33.57	33.01
Primary enrollment	105.07	105.06	125.64	113.06	111.97	118.35	102.83	105.62	126.00	96.28	125.59	101.22	105.83		90.68	106.33
Secondary enrollment	131.29	111.84	44.38	81.36	63.21	80.75	102.20	97.08	45.80	69.10	54.28	119.08	84.82		78.22	57.17
Tertiary enrollment	79.92	19.63	14.50	26.79	17.87	24.89	59.74	103.11	17.67	42.28	14.82	82.56	28.23		46.42	24.38
Literacy (%)		95.22	73.90	94.27	62.75	92.58			72.70	93.12	92.29		95.42	95.86	93.51	93.18
Literacy among 15-25		99.72	87.13	99.40	81.13	99.47			83.93	98.42	95.82		97.75	99.75	98.05	96.94
Variables related to infrastructure																
Km roads per 100 km^2	10.66	52.50	21.88	41.75	125.00	25.00	89.06	105.00	17.00	43.65	5.08	35.22	67.00	475.63	35.00	48.00
Paved roads (%)	43.50	81.10	6.29	53.50	49.50	56.90	78.22	79.30	13.70	80.40	11.90	66.20	9.90	100.00	98.50	47.60
Vehicles per 1000 pers.	694.91	510.00	21.00	57.72	18.35	59.59	590.81	363.11	20.00	361.02	7.18	711.55	30.40	148.67	156.92	13.00
Internet users per 1000 pers.	79.00	56.00	3.10	38.30	10.07	18.00	79.53	83.80	9.00	61.00	0.98	86.00	29.00	71.00	23.70	35.07
Variables related to technology and R&D																
R&D expenditures (% of GDP)	2.37	0.04	0.05	1.70	0.76	0.08	3.36	3.74	0.04	0.63	0.16	1.30	0.11	2.43	0.21	0.19
Scientific publications per 1 000 000 persons	834.23	25.71	1.81	54.80	16.11	1.06	389.04	445.38	1.84	46.21	0.19	719.09	2.31	788.12	30.44	3.67

Table 6: Institutional features (Source: Acemoglu et al. 2001, Heritage Foundation, Transparency international, WGI												
Country name	Threat of expropriation (Acemoglu et al)	Heritage foundation			Transparency international		Worldwide Governance Indicators					
		Overall score 2013	Property Rights	Freedom from Corruption	Score	Rank	Control of Corruption	Government Effectiveness	Political Stability and Absence of Violence	Regulatory Quality	Rule of Law	Voice and Accountability
Australia	9.32	82.6	90.0	88.0	85	7	2.00	1.61	1.00	1.77	1.75	1.50
Brunei Darussalam					55	46	0.64	0.83	0.92	1.16	0.81	-0.49
China	7.77	51.9	20.0	36.0	39	80	-0.48	0.01	-0.54	-0.26	-0.49	-1.58
Indonesia	7.59	56.9	30.0	30.0	32	118	-0.66	-0.29	-0.57	-0.28	-0.60	0.03
India	8.27	55.2	50.0	31.0	36	94	-0.57	-0.18	-1.25	-0.47	-0.10	0.35
Japan	9.73	71.8	80.0	80.0	74	17	1.61	1.40	0.94	1.12	1.32	1.09
Cambodia		58.5	30.0	21.0	22	157	-1.04	-0.83	-0.14	-0.35	-0.97	-0.98
Korea, Rep.	8.64	70.3	70.0	54.0	56	45	0.47	1.20	0.17	0.89	0.97	0.69
Lao PDR		50.1	15.0	22.0	21	160	-1.04	-0.88	0.04	-0.84	-0.83	-1.58
Myanmar	5.77	39.2	10.0	15.0	15	172	-1.12	-1.53	-0.96	-1.87	-1.35	-1.65
Malaysia	7.95	66.1	55.0	43.0	49	54	0.30	1.01	0.00	0.55	0.51	-0.34
New Zealand	9.73	81.4	95.0	95.0	90	1	2.32	1.79	1.36	1.84	1.88	1.64
Philippines	5.45	58.2	30.0	26.0	34	105	-0.58	0.08	-1.16	-0.06	-0.55	-0.04
Singapore	9.32	88.0	90.0	92.0	87	5	2.15	2.15	1.34	1.96	1.77	0.08
Thailand	7.64	64.1	45.0	34.0	37	88	-0.34	0.21	-1.21	0.23	-0.17	-0.34
Vietnam	6.41	51.0	15.0	29.0	31	123	-0.56	-0.29	0.25	-0.68	-0.50	-1.38

The last part of the tables looks at R&D efforts. R&D expenditures as a share of national income are minuscule in the poorer countries, probably for good reasons. Both China and India have fairly high numbers. A second measure we present is a measure of scientific output, measured as the number of scientific publications per 1 000 000 persons. The number is obviously highest in the richest countries with the highest R&D expenditures. Brunei does surprisingly well, particularly in light of its low R&D expenditure. China and to some extent India also fare quite well on this measure. Again, the poorest countries have very low scientific output.

Table 6 shows a number of measures of institutional quality for the Asian countries. The first is the measure of institution used by the seminal paper by Acemoglu, Johnson and Robinson (2001), and captures the average ranking of protection against expropriation compiled by *Political Risk* Services over the period 1985 to 1995.Although the measure is somewhat old, institutional qualities tend to change slowly so this is probably still a relevant measure. The measure goes from 0 for the highest risk to 10 for the best institutions. The conservative Think Tank *Heritage Foundation* also compiles a number of indices of freedom, including measures of protection of property rights and absence of corruption. This measures go from 0 to 100 where 100 is the most free. Another widely used measure of corruption is the index compiled by Transparency international. The index goes from 0 for the most corrupt to 100 for the last corrupt. Included is also each country's ranking in the total list which comprise 176 countries. Finally, the World Bank has supported a project to create a set of indicators of good governance labeled Worldwide Governance Indicators (see Kaufmann et al. (2010) for details).[14] These indicators go from -2.5 for the worst outcomes to 2.5 for the best.

The measures show strikingly similar results with the exception of the Heritage Foundation's Overall freedom index.[15] First, the rich countries New Zealand, Singapore, Australia, Japan, and South Korea do best (in this order) as one would expect. Malaysia and probably Brunei do almost equally well, although fewer indices are available for Brunei so the ranking is less clear. Next comes a large group comprising Thailand, India, Indonesia, China, Philippines, and Vietnam (in that order), and with the worst institutional rankings come Myanmar, Cambodia and Laos. As institutions seem to have a major impact on the possibility for sustained growth, it does indicate that the latter group of countries face challenges unless they manage to improve their institutions. Countries like Vietnam and China also fare quite badly on this measures, possible casting doubt on the possibility of maintaining current levels of growth.

Appendix Table 12 also shows some measures of income inequality and poverty. Empirically, countries with high levels of inequality have been found to grow more slowly.[16] The main theoretical justification is that in inegalitarian countries, large groups of poor are excluded from productive investment opportunities. However, in very poor societies, some inequality may be required to get investments to take off. The Gini coefficient is a well-known measure of inequality which goes from 0 for perfect inequality to 100 for extreme inequality. For actual countries observed today, the measure goes from about 20 to about 65. Japan is

[14] Updated data available at http://www.govindicators.org/

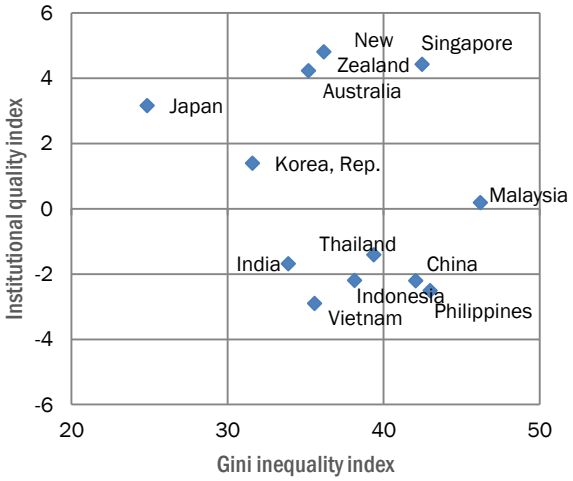
[15] A factor analysis of the table shows one clearly dominant factor and a second factor essentially picking up the Heritage Foundation Overall index.

[16] See Lamøy (2013) for an updated overview of this evidence.

among the most egalitarian countries in the world, with inequality levels at par with the Scandinavian countries. South Korea also has a fairly equal distribution of income. Particularly Malaysia, but also China, Singapore and the Philippines have fairly high levels of inequality, although much lower than say many of the countries of Latin America. Included are also measures of the shares going to each income quintile, i.e. the poorest 20 % of society, the next 20 % and so on. The poorest 20 % get between 5 % and 8 % of total income in most countries whereas the richest 20 % get close to half of national income in some countries such as Malaysia, Philippines, and China.

This indicates that the high levels of inequality are an obstacle to growth in the area. Some of the countries, maybe particularly Malaysia, but also China and the Philippines still have high levels that may indicate that large groups are banned from entrepreneurial activities, or inequality may increase the risk of social unrest. On the other hand, some countries had high growth in spite of similar rankings in the past, so further study is required to obtain firm conclusions about how growth is affected at the country level.

Fig. 14: Inequality and institutional quality
Source: Own calculations



The Table also shows some measures of poverty using the World Bank's two poverty levels, 1.25 PPP$/day for extreme poverty and 2 PPP$/day for poverty. The head count measure simply counts the fraction of the population living below the poverty line, whereas the poverty gap also takes into account how far below they live below the poverty line. The richer countries have no poor according to this definition. In India and Laos, about 2/3 of the population live in poverty, half of these in extreme poverty. Indonesia, Cambodia, the Philippines, and Vietnam have slightly less than half their populations in poverty and well below 20 % in extreme poverty. The largest pool of absolute poverty worldwide is in India, and it would certainly improve the growth prospects of India if income, education and health among the poor would be improved.

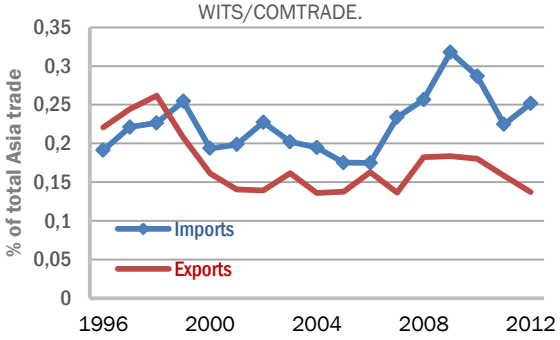
4: Norway's economic relations with Asia

Corresponding to the expansion of Asia, the region's position in Norway's external relations has also been growing over time. With intra-Asian trade growing faster than other trade flows, we would expect noin-Asian partners to have a slightly falling share of their trade. Has this been the case? Has Norway kept pace with the Asian miracle, or fallen behind?

4.1. Trade in goods with Asia: A Norwegian export miracle?

Norway is, relative to Asia, a peripheral trading partner with a modest share of their trade. Figure 15 shows Norway's share in Asia's trade in goods 1996-2012: Not a superpower, but still a significant trader. With these shares fluctuating around 0.2-0.3% for imports, and around 0.15% for exports after 2000, they are below Norway's share in world GDP. This was at 0.34% in 2010 measured in purchasing power-adjusted (PPP) data, or 0.48% in nominal dollars. Geographical distance is likely to be a major explanation; given that trade falls with distance and Asian countries trade more and more with their neighbours.

Fig. 15: Norway's share in Asia's trade in goods 1996-2012
Source: Own calculations based on data from WITS/COMTRADE.



Seen from the other end, we recall that the share of Asia (17) in nominal world GDP rose from 26 to 30% during 1990-2010. During the same period, the region's share of world trade grew from 19 to 29%. We expect a corresponding increase for Asia in Norway's trade flows. For Norwegian exports, most oil and gas is exported to Europe; so the share of Asia depends on whether oil/gas is included or not. In Fig. 16, we therefore show these shares separately for total exports and non-oil exports. The share in non-oil trade increased in parallel 11 to 17-18% during the period. Given Asia's more intensive trade with their neighbours, we observe also hare that the share is below the region's share of world GDP. There was a particularly rapid trade growth after 2006, and it is of interest to examine the driving forces underlying this.

Fig. 16: Asia (19) share in Norway's trade in goods, 1996-2012
Source: Own calculations using data from WITS/COMTRADE.

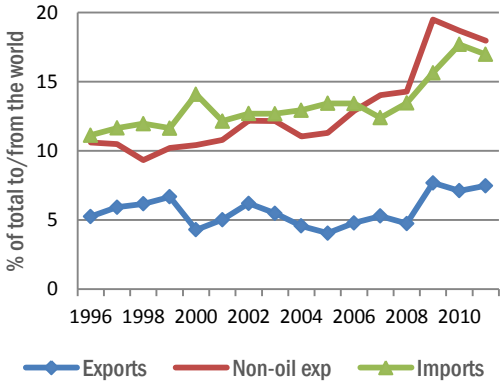


Table 7 shows annual trade growth in % by sector, based on underlying data in constant USD. For sectors, we use the aggregation/classification into eight sectors shows in Appendix Table 7. Given the faster recent trade growth observed

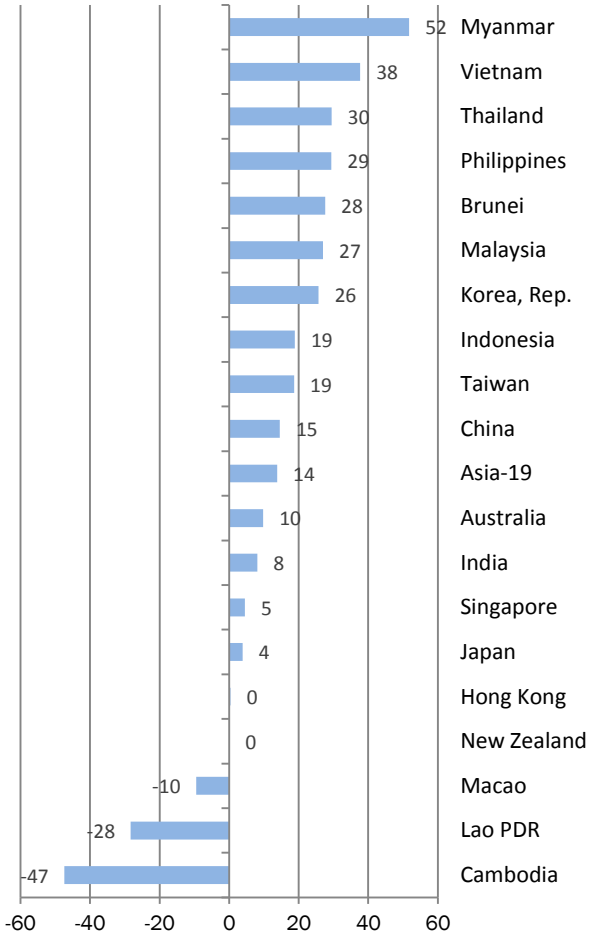
above, we show developments for 1996-2012 and 2005-2012 separately.[17]

Table 7: Sector shares, and growth rates by sector for Norway's trade with Asia-19								
	Sector shares of trade (%)				Annual growth rates (%)			
	Exports		Imports		1996-2012		2005-2012	
	1996	2012	1996	2012	Exports	Imports	Exports	Imports
Total	100	100	100	100	7.8	6.6	13.8	8.0
Seafood	18.7	10.6	0.5	0.7	4.1	8.2	6.6	10.8
Agriculture	1.7	0.4	2.1	2.1	-0.9	6.8	5.6	10.1
Chemicals	5.5	8.2	3.6	5.1	10.6	8.9	14.0	12.7
Oil&gas	7.6	26.1	0.0	0.1	16.5	17.5	33.9	55.5
Metals/min.	9.3	8.8	3.4	2.5	7.5	4.5	7.7	15.0
Textiles	0.7	0.3	17.7	16.4	0.7	6.1	-0.6	6.9
Machinery	29.0	32.8	30.1	40.0	8.7	8.5	14.1	8.2
Transp. Eq.	3.5	2.2	26.1	14.8	4.7	2.8	-12.2	7.2
Other	6.6	5.8	15.9	18.1	7.0	7.4	10.8	7.1
Source: Own ccalculations based on data from WITS/COMTRADE.								

Hence oil and gas, chemicals and machinery had the fastest export growth, whereas chemicals and machinery had the highest import growth. Observe that seafood imports grew faster than seafood exports, in both periods, and that the share of seafood in exports fell considerably, from 19% in 1996 to 11% in 2012.

Figure 17 shows Norway's trade growth by country in the region, for 2005-2012. Appendix Tables 13-15 contains more detail on the performance by sector and country, and back to 1996. The reversal of roles for Japan and China is evident; with Japan's share falling from 35 to around 13%, and China growing from 8 to 20% for exports, and from 18 to 55% for imports from Asia-19. Hence more than half of Norway's imports from Asia are now from China. Korea and Singapore are other big traders; however with imports

Fig. 17: Annual export growth 2005-2012, Norway to Asia-16



[17] Observe that the USD/NOK rate was 6.45, 6.45 and 5.82 in 1996, 2005 and 2012, respectively. Expressed in NOK, trade growth in 2005-2012 would therefore be 1.47% lower, and in 1996-2012 0.65% lower per annum. Observe also the figures are based on the US GDP deflator and not detailed price indexes for trade, so they are do not express "volume growth".

from Singapore shrinking during the first half of the period.

There was very fast Norwegian export growth in a number of markets, especially during the most recent years. Fig. 17 shows annual growth rates 2005-2012, based on data in constant dollars. While some percentage growth figures are inflated due to a low starting point (e.g. Brunei, Myanmar), export growth rates 2005-2012 at 15 % to China, 19 % to Indonesia, 26 % to Korea, 27 % to Malaysia, 19 % to Taiwan and 29-30 % to the Philippines and Thailand show that exports have increased rapidly. Appendix Table 13 shows the product composition of trade in 1996, 2004 and 2012 for all countries. Observe that oil and gas exports were somewhat erratic, with considerable changes from year to year, and mainly directed towards China, Japan, Korea and Taiwan. For example, U.S. sanctions on Iran led to a shift in suppliers and exceptionally high exports of crude oil from Norway to Korea in 2012.

4.2. Norway in Asian production networks

Fig. 18 compares Norway's trade with Asia and with the EU, using UNCTAD's classification into four sectors.

Fig. 18a: Norway's trade with Asia-19, 2012
Billion USD. Source: Own calculations based on data from WITS/COMTRADE.

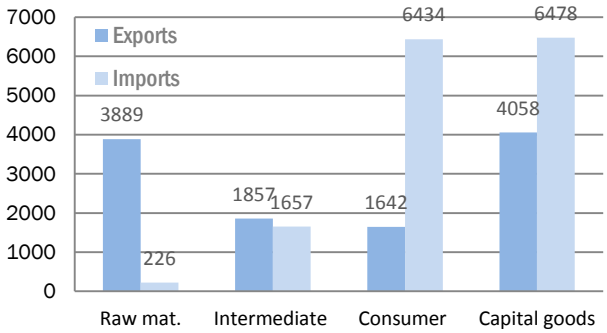
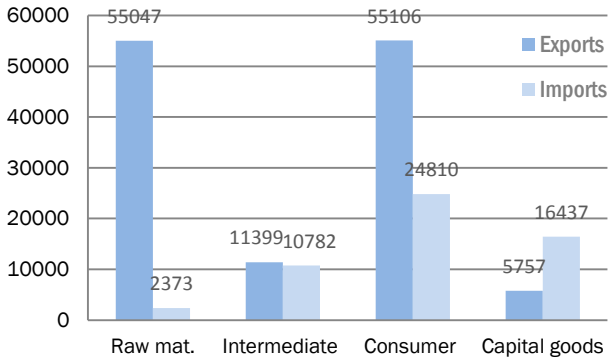


Fig. 18b: Norway's trade with EU-27, 2012
Billion USD. Source: Own calculations based on data from WITS/COMTRADE.



Norway is a significant raw material exporter viz. Asia as well as the EU. Towards Asia, we are net importers of consumer goods as well as capital goods, but for capital goods there are also significant exports. Towards the EU, Norway is surprisingly a significant consumer goods exporter, according to the UNCTAD classification.

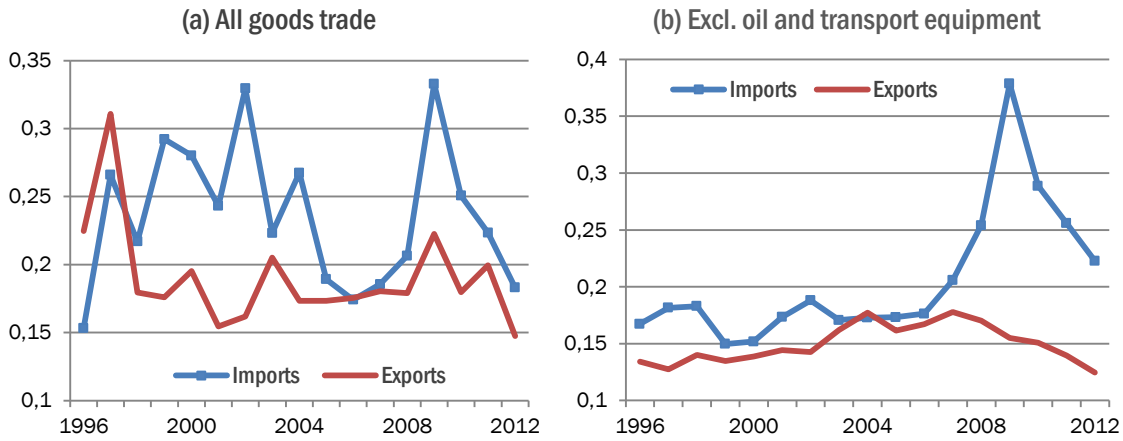
In addition to the exports of raw materials and capital goods (including mechanical components, cf. earlier note on this classification), an interesting part of production networks is related to distribution, where we have observed that the average cif-fob ratio for Norway's imports from Asia is at 31%. Assuming this represents real costs in transport and distribution, it is an important part of the value chain. We do not have information telling whether this part of the value chain is supplied by Norwegian firms or services suppliers from other countries; further research is necessary to determine this.

4.3. Trade with China: Have there been Nobel Peace Prize effects?

Given the speculation about whether China has limited trade with Norway informally, by means of network effects and non-tariff barriers such as intensified border inspections, we briefly present some additional evidence on China-Norway trade.

Figure 19a and 19b show Norway's share of China's exports and imports. Figure 18b excludes oil and transport equipment, where trade is more varying over time.

Fig 19: Norway's share of China's total exports and imports.
Source: Own calculations based on data from WITS/COMTRADE.



Norway's exports to China accelerated strongly in 2009 so it is hard to tell how much of the decline in 2010-2012 is due to a cyclical effect. Curves for exports as well as imports show a falling trend towards the end of the period. Appendix Table 16 shows Norway's trade shares (in China's total trade) by sector. This reveals that there was a noticeable decline in the share for four out of eight sectors, both for exports and imports. We present no statistical proof here that this is a Nobel Peace Price effect, but if this turns out be the cause underlying the recent decline, it apparently has affected trade in both directions.

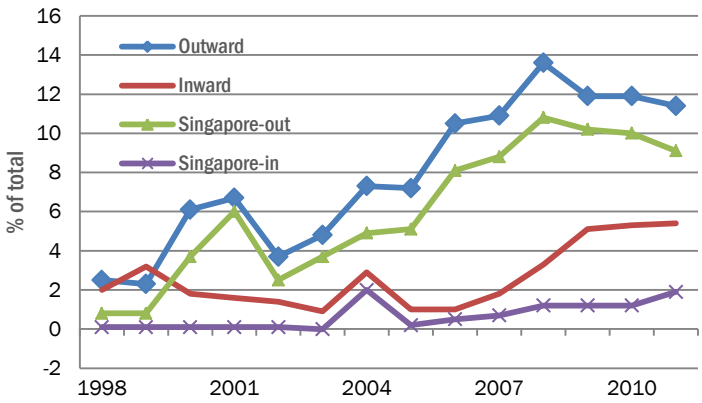
For seafood exports, a complementary hypothesis is that non-tariff barriers in China could also have an element of trade protection: they observed the increase and pulled the brake. Recently, a new licensing regime was also introduced for seafood imports, which makes it more difficult for large exporters since shipments are approved within individual quantity ceilings which are rather small for large traders. The traders can apply for new licenses when a certain share of the current license has been used, but it may may take several weeks to have a new approved license and this represents a barrier to trade.

4.4. Norway's FDI and Asia

Recalling from Chapter2 that Asia-16 currently have about 1/5 of world outward and inward FDI stocks and these shares have grown recently, one would expect a growing share of Asia-16 in Norway's outward as well as inward FDI. As shown by Fig. 20, this is indeed the case.

Given that Norway is a rich country with a large current account surplus, it is to be expected that outward flows are larger than inward flows. Asia's shares in Norway's FDI are lower than their shares in world FDI; which may be due to geography and perhaps the sector pattern of FDI. The figure also shows that Singapore is the most important Asia-16 country for FDI; especially for the Norwegian outward stock where 9.1% out of the 11.4% share of Asia-16 was by Singapore. Appendix Tables 17 and 18 show more details, by country and sector.

Fig. 20: The share of Asia-16 in Norway's FDI stock
Data source: Statistics Norway



For FDI, available statistics are by country or by sector, but not both at the same time. Hence we do not know how Norway's FDI in Asia was allocated by sector. For total Norwegian outward FDI in 2011, 28% was about oil and gas and 22% in manufacturing. Oil and gas has a similarly high share also for inward FDI. Looking at the returns from FDI, oil and gas had an even higher share of the total (61% for outward and 53% for inward FDI). The share of Asia-16 in returns from FDI were 2.5% for outward and 2.3% for inward FDI; i.e. much lower than their share of the stocks. This indicates that little of Norway's outward FDI in Asia is in oil and gas as such. It is however likely that oil and gas-related services are important. For example, Norwegian oil and gas firms sourcing their oil/gas platforms in Asia may undertake FDI in Asia related to this. It is likely that a lot of Norway's manufacturing outward FDI is in Asia. In addition, sectors related to trade, such as transport and communication (including shipping), and trade, hotels and restaurants (including trade affiliates), are of importance. Appendix Tables 19 and 20 contain more detailed information on returns to FDI by region and country.

Another source of information related to FDI, where we have information by country and sector, is on Norwegian-controlled enterprises abroad. Appendix Tables 21 and 22 contain information by region and sector, respectively, and Appendix Table 23 on the number and size of these enterprises by country. Such data has been provided since 2008 but the sample size has increased over time so some of the change over time, especially for the number of firms, may be affected by the sampling. Figures by region shows that Asia-16 had a share of turnover in 2011 at 11.2 % and a share of enterprises at 12.2 %, which is close to the share observed for the outward FDI stock (11.4%). Hence we may assume that information on the country and sector distribution for Norwegian-controlled enterprises abroad is also relevant for FDI. Here we may observe (Appendix Table 21) that Singapore and China had significant shares; 3.7 and 2.4 % of Norwegian enterprises abroad, respectively. In 2011 there were 119 enterprises in Singapore and 77 enterprises in China. Direct information about the Norwegian-controlled enterprises in Asia is available from various sources. For Singapore, the list of firms provided by the Norwegian business Association shows that shipping and shipping-related services are important, but we also find a variety of business services,

several firms with oil and gas-related services, and some manufacturing firms.[18] For example, Jotun – a large producer of paints and coatings– is strongly present in Asia with 17 affiliates in Asia-16, of which 10 with production.[19]

Figures for the sector distribution of Norwegian-controlled firms in Asia confirms that the largest individual sector was manufacturing (36.4% of total turnover). Taken together, however, services represented more than half. Table 8 shows evidence for 2011:

Table 8: Norwegian-controlled enterprises in Asia: Key facts

	Enterprises	Employed people	Turnover
	2011	2011	2011
All industries	425	48317	135748
Share of global (%)	13.2	19.3	13.0
	% of total for Asia		
All industries	100	100	100
Mining and quarrying	6.8	2.3	14.9
Manufacturing	37.4	35.9	36.4
Services	55.8	61.8	48.7
Wholesale and retail trade	4.2	1.2	1.1
Transportation and storage	25.4	11.6	11.4
Information and communication	9.6	n.a.	n.a.
Financial and insurance act.	2.1	0.1	0.5
Professional, scientific and technical activities	8.2	7.5	2.7
Data source: Statistics Norway.			

There were 425 Norwegian-controlled enterprises in Asia in 2011; with an average of 99 employees and average turnover at 298 mill. NOK, with some variation in firm size across countries: Singapore has on average 45 persons per firm, Hong Kong and Japan 13, and in the upper range we find China (119) and India (209) (see Appendix Table 21 for details). Table 10 confirms that manufacturing is more important for FDI in Asia than for Norway's outward FDI in general (manufacturing share: 22 %). Mining and quarrying includes oil so there is some FDI in Asia here but relatively less than for outward FDI in general, and the share of persons employed is very low. The largest share, more than half of firms and staff, was for services. Transportation and storage is an important sector; including shipping as well as other trade-related transportation. There is reason to believe that services FDI is more important with respect to Singapore, Hong Kong and Japan, but we do not have data on sector distribution by country.

Observe that the largest FDI partners worldwide are Sweden and the Netherlands: These two countries alone have 27% of outward as well as inward FDI. Why is this the case? It is certainly not for outsourcing in manufacturing, and the Volvo agreement never came by. While there may be many underlying reasons (e.g. border trade establishments in Sweden),

[18] For Singapore, NBAS (Norwegian Business Association Singapore, www.nbas.org.sg) provides information about about 140 firms. For China, the Norwegian Chinese Chamber of Commerce provides links to Norwegian business communities in Beijing, Shanghai and Hong Kong on www.nccc.no. However, only the Hong kong link worked when we tried.

[19] See http://www.jotun.com/no/en/corporate/about-jotun/worldwide/index.aspx.

an interesting observation in our context is that these two countries are among the largest entrepot nations in Norway's foreign trade, together with Denmark and Hong Kong (Melchior et al. 2012). Less than half of China's exports to Norway are shipped directly from China to Norway; the rest is shipped via entrepot countries (ibid.). A possibility is that this is a core ingredient of Norway's GVCs: Investment in services provision related to transport and distribution. This enables firms to handle all the practical issues, but also creates new opportunities for tax planning and capital transfer. For the Netherland, the tax regime may also play a role.

A considerable part of Norway's imports from Asia is likely to be part of MNE operations. The MNEs have affiliates different places and often organise their sales on a European basis. An interesting issue is how MNE-related GVCs are different from NEF-type transactions; to what extent are NEF-type GVCs managed directly from Norway or via international trade hubs or affiliates. Studying in greater depth how trade with Asia is organised would be interesting, and perhaps also help us sort out the huge gaps in trade statistics that we will demonstrate and examine further in section 4.8 below.

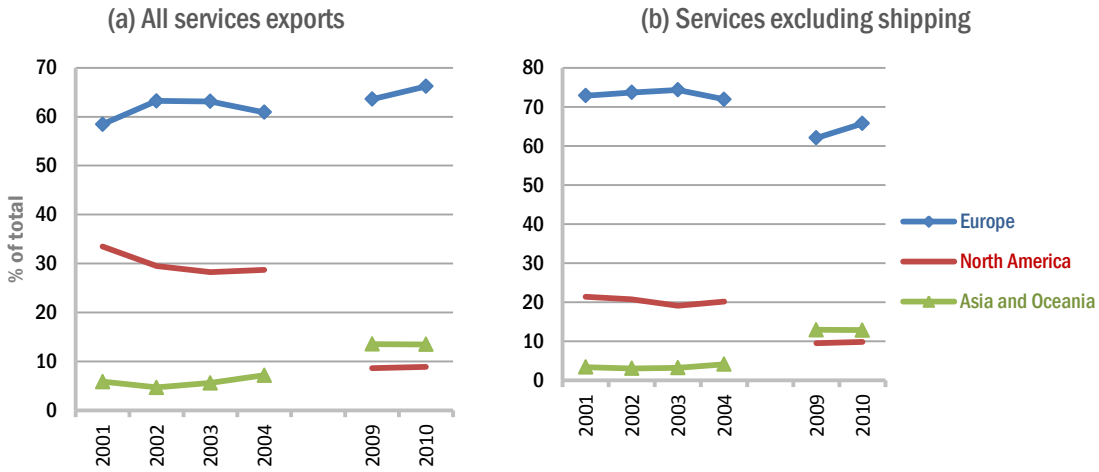
In addition to FDI, we will also revert to portfolio investment; see section 4.6.

4.5. Norway's trade in services with Asia

Given the sizeable FDI in services in Asia, a considerable share of Norway's services trade with Asia is conducted via investment; i.e. mode 3 in the WTO services trade terminology. Statistics on services trade as such include mode 1 (cross-border trade); mode 2 (consumption abroad, e.g. tourism) and partly mode 4 (temporary movement of services providers).

For services, it is important to observe that statistics provision is much more complicated than for goods; there is no counting machine at the border, and statistics are collected by means of surveys etc. Until 2004, the main source of statistics was the "currency statistics" ("valutaregisteret") of Norges Bank (National Bank of Norway); however in 2005 this was discontinued so services statistics are mainly based on statistical surveys. According to the currency statistics, the country classification of trade depended on the nationality of the firm involved in the payment transaction. Especially for shipping, this is crucial since e.g. transporting oil from the Middle East to Asia by Exxon would count as services exports to the USA (since Exxon is from the USA). From 2009, however, this would count as services exports to the Middle East or Asia, since shipping trade statistics is based on port registries. Because of this, there is a dramatic shift in country allocation of shipping trade from 2004 to 2009 (the next available year of statistics). This creates a large question mark regarding the development of services trade with Asia over time. Figure 21, showing regional shares of Norway's services exports, illustrates the point.

Fig. 21: Regional shares of Norway's services exports 2001-2004 and 2009-2010.
Data source: Statistics Norway.



There was a dramatic fall in North Americas share from 2004 to 2009, from 33 to 9% of total services exports. In panel (b), where shipping is excluded, there is still a fall, but it is a bit more modest: from 21 to 10%. For Asia, the share increased from 6 to 13% (panel a) or from 3 to 13 (panel b). Fig. 20 therefore suggests that the observed increase for Asia is not inflated by the change in shipping statistics, but actually larger if shipping is excluded. There might be other caveats here regarding statistical comparability; perhaps Statistics Norway should provide an extended explanation since services trade is of growing importance and we need reliable data.

With this cautionary note on statistics in mind, we may proceed to Table 9, which shows Norway's services trade with Asia in 2012. Appendix Tables 24-25 present more detailed information by sector, country and region.

Table 9: Norway's trade in services with Asia in 2012 (mill. NOK)			
	Exports	Imports	Balance
Australia	5948	3006	2942
Brunei	693	3	689
Cambodia	0	2	-2
China	4829	2577	2252
India	1535	1051	484
Indonesia	737	495	242
Japan	2525	2486	38
Korea	3618	2826	791
Lao PDR	14	1	12
Malaysia	1514	666	847
Myanmar	0	0	0
New Zealand	235	96	139
Philippines	138	263	-125
Singapore	6016	5110	906
Thailand	433	1689	-1256
Vietnam	114	114	0
Hong Kong	246	637	-391
Total Asia-16	*28349*	*20385*	*7959*
ASEAN	*9659*	*8343*	*1316*
Japan, Korea, China	*10972*	*7889*	*3083*
Australia, New Zealand, India	*7718*	*4153*	*3565*
Memo items			
Good trade with Asia-16	65776	81523	-15747
Services % of goods+services with Asia-16	30.1	20.0	
Asia-16 share in Norway's trade in goods	7.0	16.1	
Norway: Total services trade 2012	249593	282376	-32783
Asia-16 % of total Norway services trade	11.4	7.2	
Data source: Statistics Norway.			

Norway's services trade is quite focused on Europe, with a share of 66% for exports as well as imports in 2012. Table 9 shows that Norway has a trade surplus with Asia in services, and services constitute a relatively large share of goods + services exports. Australia, China, Singapore and Korea are the largest services trading partners, followed by Japan, Malaysia and India. The sector composition of services trade with each country is presented in Appendix Table 24. Table 10 shows sector composition for Asia-16 as a whole.

Table 10: The sector composition of Norway''s trade in services with Asia-16 in 2012.				
Sector	Mill. NOK		% of total	
	Exports	Imports	Exports	Imports
Total Services	28349	20385	100	100
Transport	12955	6982	45.7	34.3
Travel	140	3339	0.5	16.4
Communication	222	45	0.8	0.2
Construction	620	1916	2.2	9.4
Insurance	125	47	0.4	0.2
Financial	243	6	0.9	0.0
Computer & Information	743	743	2.6	3.6
Royalties & License fees	143	19	0.5	0.1
Other Business services	13071	7164	46.1	35.1
Personal, Cultural & Recreational	9	204	0.0	1.0
Data source: Statistics Norway.				

Hence transport services and other business services were the “giants”, with more than 90 % of exports and about 70 % of imports, taken together. For both these sectors, Norway has a trade surplus. On travel, on the other hand, there was a substantial deficit, indicating that Norwegians travel more to Asia than the other way around.

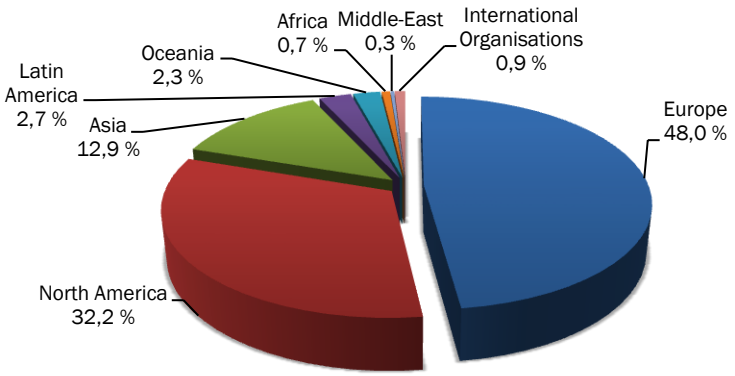
Appendix Table 25 lists the most important Asian trading countries for each sector. Transport services follows goods trade so the large goods traders are also important traders for transport services. Korea, China and Japan are also amongst the top 5 most important partners in all services sectors for both import and export. For financial and insurance services, Hong Kong enters the scene, although not massively. India is the leading supplier of Computer and information services worldwide, and – not surprisingly – also to Norway.

As noted earlier, a large part of services trade with Asia is in Mode 3; using FDI. In Chapter 2, it was observed that Asia’s services sector is crucial for further growth and at the same time hampered by low productivity and a bias towards sectors with relatively low productivity (Park 2012). For Norway, an implication is that FDI may play a key role for transforming this pattern, and there is scope for more FDI in various services fields. Norway is already involved in offshore activity in Asia, and Asia’s demand for energy-related services is set to increase significantly over time. The nature of this demand will depend on “how green” Asia will turn; see e.g. Lee et al. (2013), but energy-related services is a candidate for future trade growth in services with Asia.

4.6. Portfolio investment and the Government Pension Fund Global (GPFG)

By the end of 2012, Norway’s stock of portfolio investment abroad was at 4996 billion NOK or 858 billion USD. This can be compared to the stock of outward FDI which was 1169 billion NOK in 2011. Hence portfolio investment was four times larger. The main reason for this large volume of foreign investment is the Government Pension Fund Global (GPFG), which had a stock of 3812 billion NOK at the end of 2012, or 76 % of the total. The fund’s return in 2012 was 13 percent – the second-best performance in history, and the fund`s market value amounted to 140 percent of Norway’s mainland GDP (GPFG Annual Report, NBIM 2013). As seen from Fig. 22, Asia held 12.9 percent of the total market value and Oceania 2.3.

Fig. 22: The Norwegian Pension Fund – regional shares of market value, Dec. 2012. Source: NBIM (2013).



Considering that North America and Western and Central Europe had nominal shares of world GDP in 2010 at 32 and 26 %, respectively, North America has a share of the pension fund that is proportional to its economic size, whereas Europe has a disproportionately high share. As seen from Chapter 1, Asia-18 had 30 % of nominal world GDP in 2010, and its share of the fund investments is considerably lower. In this section, we use GDP shares for comparison and illustrative purposes, but it has to be recalled that investment is guided by a number of other considerations.

The fund had only invested in 11 out of the Asia-16 countries and only 5 of the 10 ASEAN countries; Indonesia, Malaysia, Singapore, Thailand and the Philippines. Table 11 shows the magnitude of the fund's investments in these 11 countries.

Table 11: The fund's investments in Asia-11, with comparison to shares in FDI and GDP
Note: All except FDI calculated in 2012.

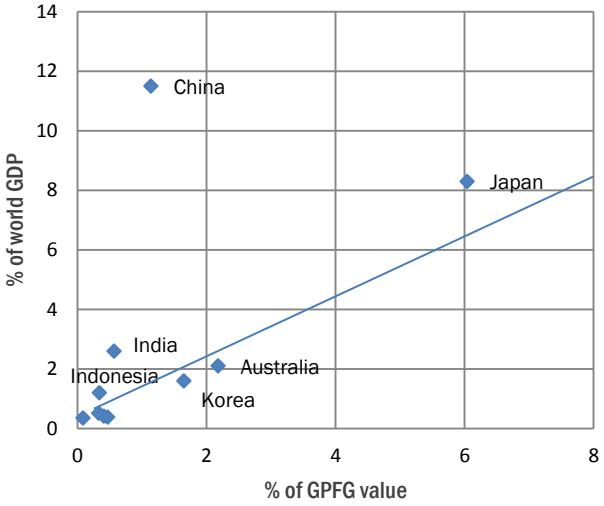
Country	Total market value of investment (in billion NOK)	Percentage share of the fund's total investments in the world	Percentage share of total investments in Asia & Oceania	Country`s share of total world GDP (current US$)	Country`s share of total incoming world FDI
Indonesia	13 051	0.34 %	2.2 %	1.2 %	1.12 %
Malaysia	15 612	0.41 %	2.7 %	0.42 %	0.70 %
Singapore	18 077	0.47 %	3.1 %	0.38 %	3.24 %
Thailand	12 484	0.33 %	2.1 %	0.51 %	0.45 %
Philippines	3 285	0.09 %	0.6 %	0.35 %	0.11 %
China	43 648	1.14 %	7.5 %	11.5 %	16.24 %
India	21 684	0.57 %	3.7 %	2.6 %	1.87 %
Japan	230 281	6.04 %	39.5 %	8.3 %	0.0046 %
South Korea	62 796	1.65 %	10.8 %	1.6 %	0.28 %
Australia	83 156	2.18 %	14.3 %	2.1 %	3.82 %
New Zealand	4 546	0.12 %	0.8 %	n/a	0.25 %

Source: NBIM (2013) and World Development Indicators (WDI).

Together the 5 ASEAN countries held only 1.6 % of the total fund, whereas China, Japan and South Korea ("+3") held as 8.8 percent, or more than half (58 %) of the fund's investment in Asia-16. Most of this was in Japan, which alone held 6 percent of total market value. Appendix Table 26 also shows how this investment is divided into fixed income assets and equity.

Using the last two columns in Table 11, Figure 23 plots each country's share in the pension fund value against its share in world GDP (nominal). For the majority of countries, the share in world GDP is not dramatically different from their share in the fund. This applies to Malaysia, Singapore, Thailand, Japan, Korea and Australia. The biggest outlier is China, with a share of world GDP at 11.5% but only 1.14% of the fund's value. We find a similar difference, although in smaller scale, for some of the relatively poorer countries (Indonesia, Philippines, India). For China, it should be observed that Europe and North America also have very low shares of foreign portfolio investments in China.[20] In Chapter 5, we will also see that Europe's share of FDI into China has been very low: at 5-6% recently. The low GPFG share for China is therefore not only an NBIM issue, it is part of a broader pattern where China's regulation of foreign investment may be a key issue.

Fig. 23: Country shares: World GDP versus Pension Fund 2012 Source: Calculated from NBIM (2013) and World Development Indicators data.



Poorer countries generally have less developed stock markets and this reduces their share of portfolio investments. Due to a larger share of companies listed on the national stock markets in developed countries, a natural asymmetry will emerge. This asymmetry between rich and emerging markets has also been embedded in the fund`s investment strategy. Until 2012, a regime of fixed regional weights was applied where each region had a specific share assigned; Europe 50 %, America and Africa 35 %, and Asia and Oceania 15 percent. This was abandoned in 2012, and replaced with market weights reflecting each country`s share of the world`s stock market. This will bring the share of Asia and Oceania up to19 %, and with the new system from 2012, Asian countries' shares of the fund's investments are expected to increase over time. In this new regime, the emerging countries of Asia will still be underweighted according to GDP, but their share may increase naturally over time as their stock markets evolve further.

In the debate before deciding on the new equity benchmark, it was discussed whether Asia and emerging markets should have a larger than market weight share of the investments, to secure the fund's part of these countries rapid growth. This was decided *against* as risk and other factors implied to keep the weights at market value (Ministry of Finance 2012). With the new scheme the portion invested in developed Europe remains higher than market weights and the portion in developed North America remains lower, whereas developed Asia

[20] Table 6-14 in China Statistical Yearbook 2012, by National Bureau of Statistics of China, distinguishes between Foreign Direct Investment and "Other Foreign Investment". For the latter, Europe and North America each had about 1% of the total. It is however possible that statistics are incomplete.

and Oceania and emerging markets (globally) will be in line with market weights. This gives a distribution of; 41 percent Europe, 40 percent America and Africa and 19 percent Asia and Oceania. Out of this emerging markets will account for 10 percent as opposed to 6 in the old regime[21]. China, India, Indonesia, Malaysia, Philippines and Thailand all fall under the latter category[22]. The rest of the ASEAN countries will also if (or when) entered into the portfolio fall under the "emerging market" category.

4.7. Norwegian aid to Asia

With Asia ranging from richness to massive extreme poverty, and Norway being a rich country aiming to provide generous development assistance, aid is also part to the economic interaction. As shown in Appendix Table 27, Asia-16 in 2012 received 10% of Norway's aid, or 2.7 billion NOK. In earlier time, more aid was also provided to India and Korea in the 1960s, and Vietnam in the 1970s, so over the period 1960-2012 Asia received 75.2 billion NOK (constant 2012 value), or 14% of total aid. The pattern of aid recipients during recent years is shown in Fig. 25, with Viet Nam, India and China on top among the 11 countries.

Fig. 25 shows what were the types of aid. The share of emergency assistance increased considerably during this period, compared to 2000-2005. More details on aid types by country are provided in Appendix Table 28.

Fig. 24: Norway's aid to Asia, 2006-2012

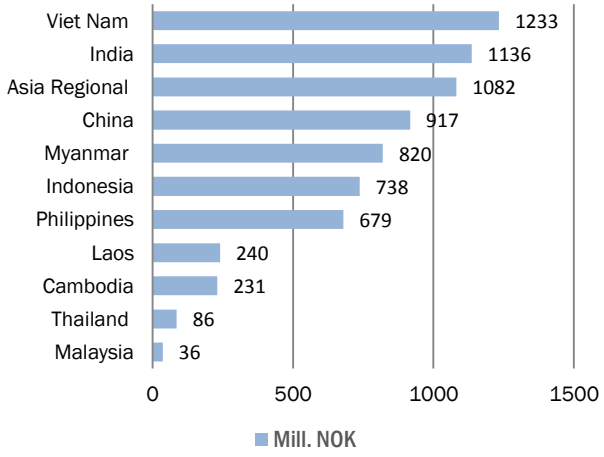
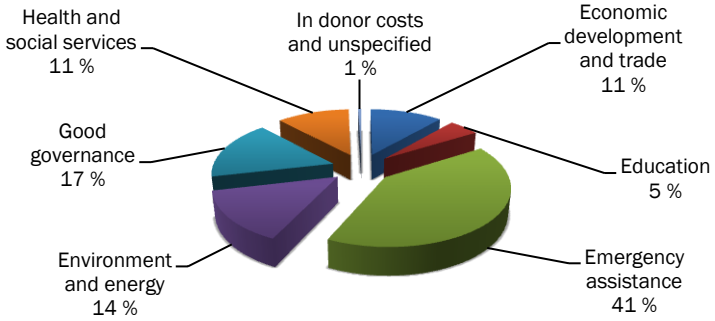


Fig. 25: Norway's aid to Asia 2006-2012 by type

Data source: NORAD.



[21]Emerging markets will also be included in the fund`s fixed income reference index gradually, as of 2012. Source: Ministry of Finance 2012.

[22]South Korea is grouped as "developed country" by FTSE, and as "emerging" by MSCI in the companies' respective equity indexes. Source: Ministry of Finance 2012.

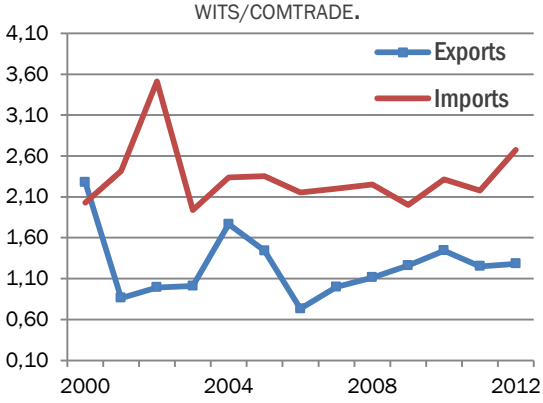
4.8. Statistical mysteries: Who has a trade surplus?

In the analysis os services, we have already seen that there are considerable problems related to international trade statistics. This is also the case for trade in goods, where data gaps seem to be growing over time. In this section, we analyse the fact that Norway's imports from Asia are actually about twice as large as the corresponding exports to Norway reported by Asian countries. The problems are partly due due globalization and a more borderless firms, with trade involving firms in different countries.

With ever improving access to data on trade, an interesting possibility is to compare reported trade at the two ends; e.g. China's reported exports to Norway should in principle correspond to Norway's imports from China. Data with such double observations of trade are called mirror data. International trade statistics have common classification down to the 6th digit of the Harmonised System (HS) classification. Hence one may compare at a detailed product level, or aggregated for all bilateral trade.

Using such mirror data immediately reveals a lot of shocking discrepancies. In principle, reported imports should be a little higher than reported exports since imports are reported "cif" – i.e. cost, insurance, freight are added, while exports are "fob" (free on board) without these cost components. For its balance of payment statistics, the IMF often used a rule of thumb at 10% to fill in missing observations. Looking at Norway's trade using mirror data reveals another story. Melchior et al. (2012) reported the cif/fob ratios for Norway's total imports from 122 countries in 2009, and found a median value of 1.82 – Norwegian reported imports were in this case 82% larger than reported exports. Values may be higher or lower. As an illustration for Asia, Fig. 26 shows cif/fob ratios for Norway's imports and exports from China. Imports into Norway were generally more than twice as large as exports from China, whereas the gap in the other direction is somewhat smaller.

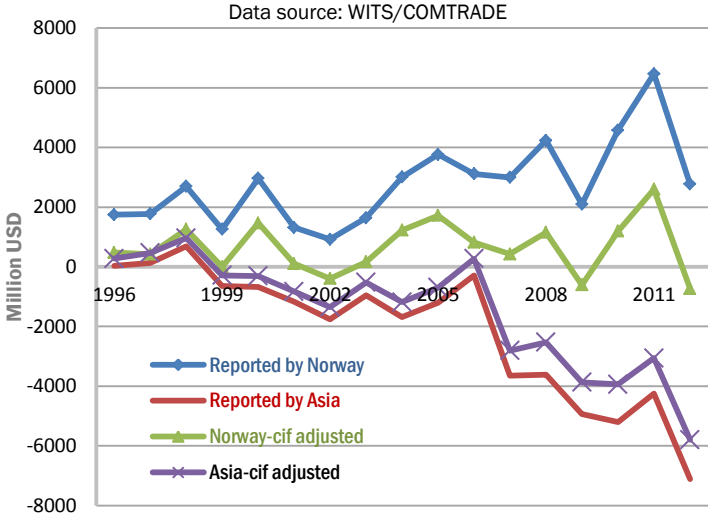
Fig. 26: cif-fob ratios for Norway's trade with China.
Source: Calculations based on data from WITS/COMTRADE.



A gap so large is important, whatever is the reason behind. In e.g. trade negotiations, the two parties may have completely different perceptions about reality because their trade data are different. As another illustration, Fig. 27 shows Asia's trade balance with Norway, from the Asian side (i.e. a positive value = trade surplus for Asia), but using either Asian or Norwegian data. According to Asian data, they had about balanced trade with Norway in 1996, but thereafter developed a growing deficit (7 billion USD in 2012). According to Norwegian data, however, the deficit was clearly in the opposite direction, with an Asian trade surplus of more than 2 billion USD in 2012, i.e. a gap of almost 10 billion USD compared to the Asian data. These "raw" trade balances are biased due to the cif-fob factor; if they are adjusted (i.e. the cif cost is deducted from import values), the two curves would be closer. As an illustration, curves are also shown where exports from Asia have been adjusted by a cif-fob

factor of 1.37, and trade from Norway to Asia by 1.1 (see explanations below for these figures). In this case, Norway has about balanced trade with Asia according to Norwegian data, but still a substantial trade surplus according to the Asian data. There is still a gap of about 5 billion USD. With total imports from Asia-19 into Norway at about 15 billion USD, this is a considerable uncertainty.

Fig. 27: Asia's trade balance with Norway, according to statistics reporter
Data source: WITS/COMTRADE



There are essentially four main explanations of these gaps:

- The first is that there are high costs added on the way, to the cif-fob factor is indeed much higher than 10%. This may not necessarily be transport costs, but price mark-ups to middlemen or trading affiliates of multinational companies.
- The second is that reported import prices are higher as a result of deliberate misreporting, e.g. as a result or transfer pricing or the like. By adjusting the price, traders may move large funds across borders.
- A third possibility is that the country of origin or destination is erroneously reported by mistake. For example, a lot of Asia-Europe trade may be coordinated via trading hubs, and China may sometimes even not know whether the goods are finally ending in Norway or Sweden or other countries. This is sometimes called the “Rotterdam effect” due to the role of the Netherlands as a trading entrepot.
- Fourth, the cif-fob difference could be due to deliberate or arbitrary errors in reporting. If this is the reason, the gaps might not be stable and persistent over time.

So far, some but limited research has been undertaken on the explanations. Hummels and Lugoovsky (2006) show that cif-fob ratios are correlated with transport costs but deviate substantially from true transport cost. Melchior et al. (2012) show, for China-Norway trade, that prices are doubled for exports that are shipped indirectly from China to Norway. This may be in conformity with explanation one or two above. Melchior (2013) show that the “Rotterdam effect” is the major explanation for high cif-fob ratios for India’s exports to Norway.

It is beyond the scope of this study to fully explore the reasons underlying the statistical gap we have observed, but one effort will be made to get a bit closer. Observe that the two first explanations above should affect the price of trade, whereas the third and partly the last should affect volumes. By checking whether the value gap is due to volume or price deviations, we can distinguish between price and volume effects and find out whether the “Rotterdam effect” or the price-related explanations is more important.

We therefore calculate price indexes for each country/year/trade flow.[23] As an illustration, Fig. 28 decomposes the cif-fob ratio for imports from China in this way. Here the price ratio has increased but recently been relatively stable around 1.5, whereas the volume ratio has fluctuated strongly but increased to close to two recently. According to this, the "Rotterdam effect" may explain a considerable part of the cif-fob ratio for China, but there is also a substantial mark-up well above the standard IMF expectation of about 10%.

Fig. 28: Decomposition of the cif-fob ratio for imports from China 2000-2012. Source: Own calculations.

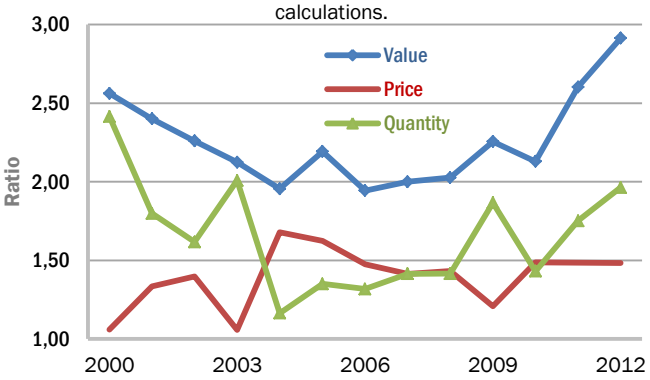
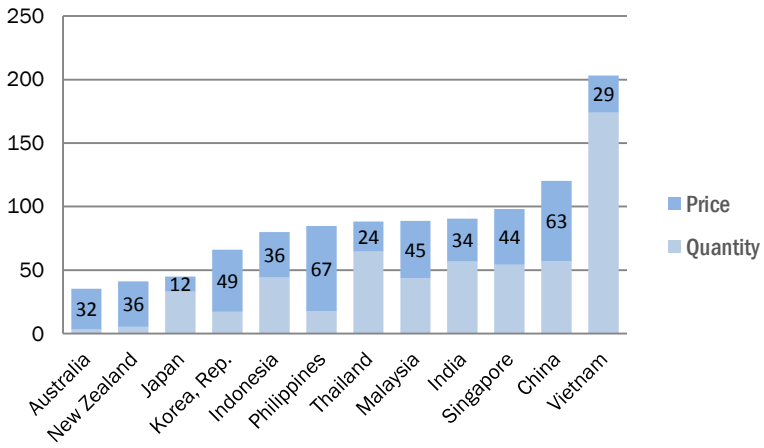


Figure 29 presents results where the total cif-fob ratios are decomposed into a quantity and price component, for selected Asian countries.[24] Here figures have been expressed in percentages; e.g. a cif-fob ratio of 2 is equivalent to 100 (100% mark-up). Hence it varies across countries to what extent price or quantity deviations explain the high cif-fob ratios, and for all countries except Australia and New Zealand, both quantity and price effects are important.

Fig. 29: Decomposition of the cif-fob ratio for imports from selected Asian countries into Norway (average for 2007-2011). Source: Own calculations.



[23] Using detailed data at the 6-digit product level For Norway's trade with Asia-19, we start out with data sets of 210 000 observations for imports, and 81 000 for exports. We proceed with countries/observations where we also have mirror data (more than half of the observations disappear). Next, we have to check that the quantity unit for each product/country observation is similar, and delete further observations. Finally, there are many extreme observations and we delete all observations where the average unit value (=value/quantity) is more than five times larger or correspondingly smaller (<0.2 of) than the mirror observation. In this way, we finally end up with data sets of 50 000 observations for imports, and 10 600 for exports. We calculate Marshall-Edgeworth price indexes of the form $P=\sum_k p_k*(q_k+q_{k\text{-mirror}})/ \sum_k p_{k\text{-mirror}}*(q_k+q_{k\text{-mirror}})$ i.e. we use volumes from both sides of reporting as weights (or the average, which is equivalent. If we denote the value cif-fob ratio as V, we can then derive a quantity index as Q=V/P. For Fig. 29, we use the average for 2007-2011.

[24] We use 2007-2011 since there are fewer observations for 2012 and 2012 data are sometimes preliminary.

For countries where the quantity explanation is important, it is likely that the quantity of exports is underreported. If we assume that the whole quantity effect is due to the "Rotterdam effect", we can assume that import figures are generally more reliable. According to this, we can use the measured price index as the true cif-fob ratio, and we might calculate a hypothetical adjusted export figure. Figure 19 suggests that the quantity of exports is severely misreported in many cases. The price-related "true" cif-fob ratio varies from 12 to 67%. In table 12 we use the estimated price indexes to recalculate export values for 2010, for 12 Asian countries where we have data and P estimates.

Table 12: A hypothetical recalculation of export values from Asia to Norway, 2010

	Imports	Mirror data	Ratio import/mirror data			Recalculated "true exports"
			cif-fob value	Estimated P	Quantity ratio	
Japan	1694	1072	1.58	1.09	1.45	1554
Vietnam	313	71	4.43	1.11	3.99	282
Thailand	378	174	2.18	1.15	1.89	329
India	366	165	2.22	1.23	1.80	298
Indonesia	144	53	2.71	1.25	2.17	116
Australia	102	44	2.33	1.31	1.78	78
Malaysia	340	85	3.99	1.31	3.04	260
Singapore	438	49	8.98	1.31	6.86	334
New Zealand	37	12	2.95	1.34	2.20	27
China	6561	2821	2.33	1.41	1.65	4653
Philippines	36	7	5.46	1.57	3.48	23
Korea, Rep.	2343	1927	1.22	1.69	0.72	1386
All 12	12753	6480	1.97	1.37	1.44	9340
Data source: Own calculations.						

This calculation is made under the assumption that reported import quantities are correct; i.e. that Asian export quantities to Norway are underreported due to the "Rotterdam effect". According to this, the table suggests that trade quantity is severely misreported in some cases, with Singapore (only 1/7 reported) as the extreme case. For these countries taken together, imports were 12.8 billion USD and exports about half (6.5 billion), and the estimates suggest that quantity underreporting represent a bit more than half of this gap for the 12 countries combined, and the average "true cif-fob ratio" should be 1.37. This is the figure used for imports in Figure 20 above. 37% is a significant cost of trade, which shows that international transport and distribution may be a large component in international value chains. With complex international GVCs and a lot of trade via intermediates, the cif-fob ratio may include substantial services trade that is not appropriately recorded in the statistics. It is possible that some of our goods imports from Asia are actually services imports from Europe, or services delivered by Norwegian-owned firms in Europe or other locations. More research is needed to confirm to what extent this is the case.

For exports from Norway to Asia, cif-fob ratios are much more erratic and for the sake of brevity we drop further detail on this. Hence we do not have a reliable estimate on the adjusted cif-fob ratio for exports to Asia; perhaps data for other countries with more observations may provide a clearer picture. In Figure 20 we arbitrarily used a cif-fob ratio for Asia's imports from Norway at 1.1; this may perhaps be larger but we do not know exactly.

Due to the importance of quantity gaps, the “Rotterdam effect” is likely to be important, and this suggests that Norwegian import data are more reliable than Asian export data to Norway. According to this, it is likely that Norway-Asia trade is roughly balanced and has been so for the period after 1996, with some fluctuations.

The analysis also reveals that the uncertainty about trade data seems to increase over time. This may be a consequence of the more borderless world, with multinationals operating in many countries, and trade flowing more freely in Europe and other regions due to trade liberalization.

5: Implications and trade policy issues

5.1. Asia and Norway's terms of trade

The most obvious implication of Asia's economic growth and rising share of the international economy is simply that Asia becomes more important, in one area after another. For Norway and other countries, it is necessary to adapt to this change; in government, institutions and business. Norway has generally fared well in this respect, with fast expansion of trade and contacts with Asia. This process will surely continue and expand in new areas.

Norway phased out labour-intensive manufacturing at a relatively early stage but was, in spite of this, one of the most protectionist countries in the world for textiles and clothing during the 1980s, with a very strict quota regime. This was however gradually lifted and abandoned before the 2005 deadline set by the WTO. With substantial tariff reductions on top, Norway was changed into one of the most liberal countries in the field of textiles trade (see e.g. Melchior 2006). Furthermore, we do not have as much to lose in the manufacturing field as other Western countries, with large car and machinery industries. Hence Norway has been able to expand trade with Asia without major pains of transition. There are exceptions (e.g. solar panels), but they are modest compared to most other Western countries.

Norway has benefited from Asia's growth in two major ways: higher commodity prices and lower consumer prices. As seen from Chapter 2, Asia's commodity imports grew faster than other trade flows and this growth in demand contributed to higher commodity prices worldwide. For consumer goods, it is well documented that imports from Asia in general, and China in particular, contributed to lower price inflation in Norway. In 2012, the export price index was at 81% above the level in 2000, whereas the import price index had risen by 11%. Hence during the last decade, there was a huge terms-of trade gain for Norway. A back-of-the envelope calculation, using trade and GDP in 2000 as basis, suggests there was a 27% gain due to this terms of trade effect only.[25] This is equivalent to an annual gift of 45 billion USD.

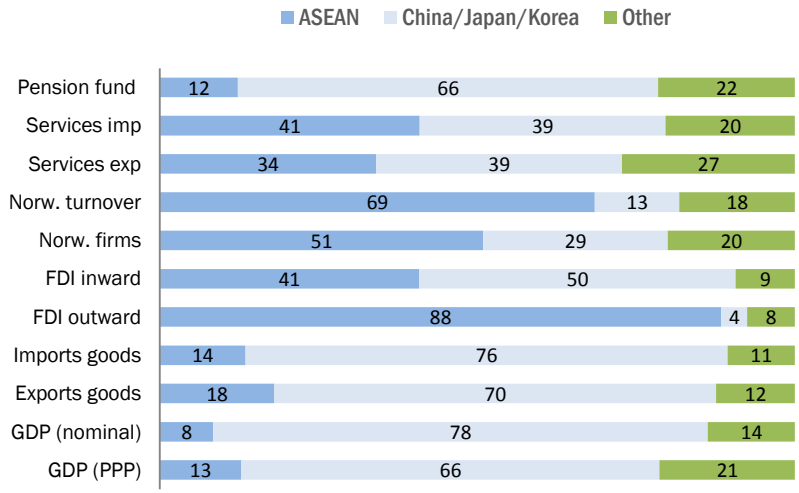
The fairytale of the last decade can hardly continue forever. With USA reducing its energy deficit through shale gas, Norwegian gas export prices are already under pressure. With slower growth in Asia, commodity prices could take new turns. On the other hand, Asia will continue to grow and, as seen in Chapter 3, even slower growth adds substantially to world GDP and demand. While ups and downs are to be expected, the longer-run outlook is continued growth in demand for Norwegian goods and services from Asia.

[25] Writing GDP = Consumption + Investment + Exports – Imports and taking into account that exports and imports had shares of GDP in 2000 at 35.6 % and 20.4 %, respectively, net trade in 2000 was at 15.2 % of GDP. Scaling up trade with the prixe indexes, 1.81 for exports and 1.11 for imports, revised net trade becomes 41.8% of GDP, i.e. a difference equivalent to 26.6% of GDP. Data sources: Price indexes from Statistics Norway, GDP from WDI, trade from WITS/COMTRADE.

5.2. Norway: A focus on ASEAN

Taking into account the rising importance of Asia is the first step of ”getting proportions right”. This is relevant in a number of contexts related to economic and policy decisions. A second step is to have the right priorities across countries within Asia. With BRICS attention and media focus on China and India, the rest of Asia may fall in the shadow. In real business, we have seen from earlier chapters that many other countries are important. As an illustration, Table 14 sums up the importance for Norway of different sub-groups within Asia-16, in the fields studied in Chapter 4. We split up Asia-16 into ASEAN and the other two country groups within Asia-16; the ”+3” large ones (China, Japan, Korea) and the remaining three (India, Australia, New Zealand; “Other” in the graph). Figure 30 shows the allocation across the three country groups within Asia-16 for the various components studied earlier, with the share in Asia-16 GDP (PPP and nominal) shown as comparison, at the bottom.

Fig. 30: Norway-Asia economic relations: Allocation within Asia-16



For trade in goods, China, Japan and Korea have 70-76% of Norway’s trade with Asia-16, very close to these countries’ combined share of Asia-16 GDP. ASEAN has only 8-13% of the economic mass of Asia-16, measured by GDP, and a similar share in goods trade and portfolio investment. For services trade and FDI, however, ASEAN plays a much larger role, with shares of Norway-Asia-16 interaction ranging from 34 to 88 %. Table 13 shows that Singapore is a hub for Norwegian activity in Asia. In the light of the recent focus on BRICS, we may also observe that India is not yet a major player in Norway’s relations with Asia. In some fields, such as computer services imports and telecom investment, India is already important but in general, the share of India in Norway’s economic relations to Asia is lower than proportional to its economic mass.

An implication of this distribution is that for FDI, Norway is a small player in China. To some extent, this is part of a broader pattern: Most of China’s inward FDI is from Asia and Europe has a low share. Figure 31 shows regional shares of FDI flows into China 2000-2011. Europe as well as North America have small and declining shares. On top of this, Norway is a small player compared to other similar countries. This is shown in Fig. 32.

Table 13: Getting proportions right: The relative importance of Asia and its subgroups of countries											
	Goods trade		FDI outward stock	Norwegian-controlled abroad		FDI inward stock	Services trade		Pension fund value	GDP shares	
	Exports	Imports		Firms	Turnover		Exports	Imports		PPP	Nominal
Year	2012	2012	2011	2011	2011	2011	2012	2012	2012	2010	2010
Asia-16 % of Norway total	17.9	17	11.4	12.2	11.2	5.4	11.4	7.2	12.9		
Asia-16 % of world total										32.4	28.3
Shares of Asia-16 total											
Asia-16	100	100	100	100	100	100	100	100	100	100.0	100.0
ASEAN	18.0	13.5	88.4	50.9	68.5	40.8	34.1	40.9	12.3	12.9	8.4
Singapore	10.1	3.1	80.1	30.1	38.4	35.4	21.2	25.1	3.6	1.2	1.4
China/Japan/Korea	69.6	75.9	4.1	29.1	13.3	49.9	38.7	38.7	66.2	65.8	77.9
China	19.9	54.5	2.5	19.5	10.5	25.4	17.0	12.6	8.6	41.9	27.9
Japan	12.6	13.8	0.5	5.3	1.2	11	8.9	12.2	45.3	17.9	43.1
Korea, Rep.	37.1	7.6	1.2	4.3	1.6	13.4	12.8	13.9	12.3	6.1	6.9
India	3.0	3.9	0.89	9.1	4	0.08	5.4	5.2	4.3	17.3	8.3
Australia + New Zealand	3.5	1.1	5.5	10.9	14.1	9.3	21.8	15.2	17.2	4.0	5.4
Source: Based on calculations and data in earlier chapters and Appendix Tables.											

Fig. 31: Regional shares of FDI flows into China, 2000-2011
Data source: National Bureau of Statistics of China

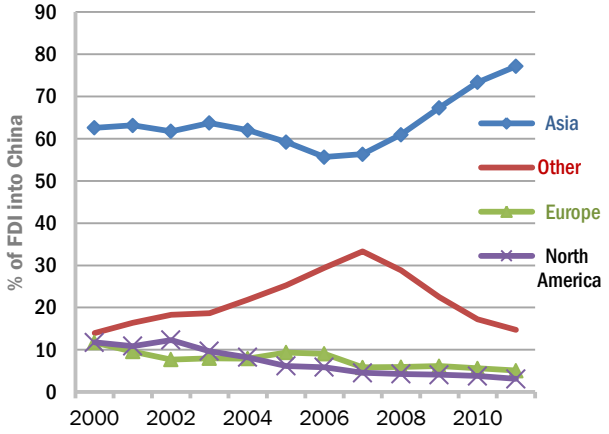
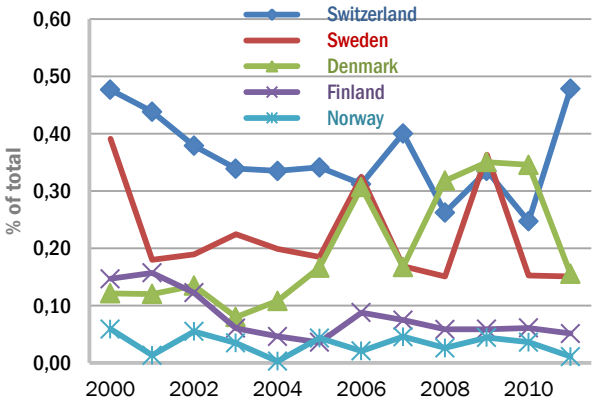


Fig. 32: Country shares of inward FDI flows into China, 2000-2011. Data source: National Bureau of Statistics of China.



Compared to Switzerland, Sweden and Denmark, Finland and Norway are at the bottom, with no sign of an increase. Given the importance of government contacts and approval in China, the current Norway-China impassé will not help. Norway's position may to some extent be caused by industrial structure: China is the manufacturing locomotive of Asia and a large share of FDI in China is in manufacturing (45% in 2011); another large FDI sector in China is real estate (23% in 2011).[26] Norway has significant manufacturing investment in China and Asia, but still of modest size compared to many other countries.

For e.g. shipping and offshore, it is possible that other Asian countries can serve as hubs, also for the Chinese market. Hence heavy investment in Singapore may be related to Asia more generally, and not only Singapore. If Norway want to take part in the broader development of services in China, including energy-related services, more FDI may be necessary in the future. This makes it even more important for Norway and China to reestablish their normal government interaction.

5.3. Implications of Global Value Chains

Asia's growth is intrinsically linked to FDI and GVCs. The prevalence of GVCs has a number of implications for analysis and policy. One obvious implication is that also here we should "get proportions right" and avoid relying on gross trade data in order to evaluate trends and policy priorities. For example, seafood farming and catch are different in terms of value added chains, and one should take this into account for policy considerations, when the purpose is to affect national real income or welfare. GVCs also imply that bilateral gross trade data can give a distorted picture; inflating the trade success of or threat from GVC-based exporters such as China.

A second implication of GVCs is that protection for intermediate goods hurts yourself. This is an old argument: for example the notion of "effective rates of protection" illustrates that

[26] See Table 6-16 in China Statistical Yearbook 2012, by National Bureau of Statistics of China.

true protection should be calculated in % of value added and not the gross value.[27] This has been a traditional argument for tariff escalation in import-competing industries. With international production networks, tariffs on intermediate goods imports reduces value added in final goods production. According to Baldwin (2012), this was a main driving force behind unilateral and negotiated tariff cuts in a number of emerging economies.

A related phenomenon is that with international production networks, rules of origin (RO) become more critical in trade policy. With predominantly national production systems, a larger share of the goods are made in the exporting country. With international production networks, the share made in the exporting country is lower. ROs say that in order to be entitled to some tariff preference, e.g. in FTAs or GSP systems, a certain minimum of production has to be undertaken in the exporting country. In practice, ROs are generally of three types: (i) Value thresholds, i.e. that a certain percentage of the ”fob” export price has to be domestic value added; (ii) process rules, i.e. that a certain part of the production process (e.g. sewing a shirt from fabrics that may be imported) has to be undertaken in the exporting country; and (iii) classification rules, i.e. that change from one position to another in the tariff scedule, from imported inputs to exported outputs, is enough to be certified as originating in the exporting country. In multi-country FTAs, there may also be rules on ”cumulation”, i.e. allowing the process to be undertaken in more than one participating country.

With international production networks, ROs may create several problems. First, they may imply that tariff preferences in FTAs are not applicable (see below) since trade does not fulfil the RO criteria. Second, there is considerable variation in ROs internationally and this may create costs related to complexity and information requirements. Third, small countries may be at a disadvantage since they have more limited domestic supply of intermediates. Fourth, problems of fulfilling ROs may create a stronger incentive for trade fraud; e.g. trade misclassification if RO classification rules are used, or trade mispricing if value thresholds are used.

For trade and trade policy, we showed in Chapter 2 that Asian production networks are quite intra-regional, with a high share of intra-Asian trade in components. This also applies to European production networks, stimulated by EU enlargement and massive intra-European FDI. As shown by Baldwin (2012), China is the only major GVC player with large trade outside the regional ”factories” of Asia, North America and Europe. Hence the GVCs may stimulate a stronger intra-regional focus in international trade policy.

Beyond trade policy issues, GVCs raise a large number of issues related to each country’s participation in GVCs and the benefits therefrom. This involves e.g. investment policies, tax rules, infrastructure, technology and more; see e.g. UNCTAD (2013) for a broad discussion. Stan Shih, the founder of Acer in Taiwan, introduced in the 1990s the concept of the ”smiling curve”, suggesting that value added was higher in the lower and upper parts of the value

[27] If e.g. a good costs 100 but inputs cost 50 (and can be imported), a tariff of 20% on the final good raises the price to 120 and domestic value added from 50 to 70, i.e. by 40% which is the effective rate of protection. Now if a tariff of 10% is also levied in inputs, the input cost will increase to 55 and new value added in domestic production of the final good will be 120-55=65, so the effective rate of protection is 15/50 or 30%.

chain; including technology, patents and component production in the lower range, and branding, services and marketing in the upper end. Hence the fear was that emerging countries could be stuck in assembly in the middle, with lower value added and profitability. According to this, Asia has mostly been at the lower or middle portion of the ”smiling curve”, having to rely on Western MNEs and firms for their access to markets. With growing intra-regional markets, Asian outward FDI and skill upgrading, this pattern may change over time as Asian firms become their own masters in international trade and countries develop their own MNEs. This process has begun, but will take time and vary across countries.

In discussions on policy implications of GVCs, it is often forgotten that a large part of the value chains are in distribution. Hence even if a country is a pure importer, it may generate value added by being involved at the upper end of the ”smile curve”. In the study, we have shown that the value of trade flows may be multiplied by two or three on the way from Asia to Norway. To the extent that this is due to real costs and value added on the way to Norway, an issue is how Norwegian firms are able to participate in this part of the ”smile curve”. Norway has few major MNEs in consumer goods, but still opportunities for trading firms that expand internationally.

The large trade data gaps we have illustrated also raise the issue about whether GVCs have rendered international trade statistics useless and unreliable. One possible answer is to say yes; in the era of globalization we can no longer record international trade flows accurately so we should just let it go, just like we do not record when people go to the shop. A more plausible response is to look more into the issue, check what are the reasons, and what can be done about it. GVCs also create opportunities for tax and tariff evasion, and the system of governance should make an effort to follow the traders. On the other hand, we may have to accept that reliable data for international transactions become more difficult when firms have operations in many countries.

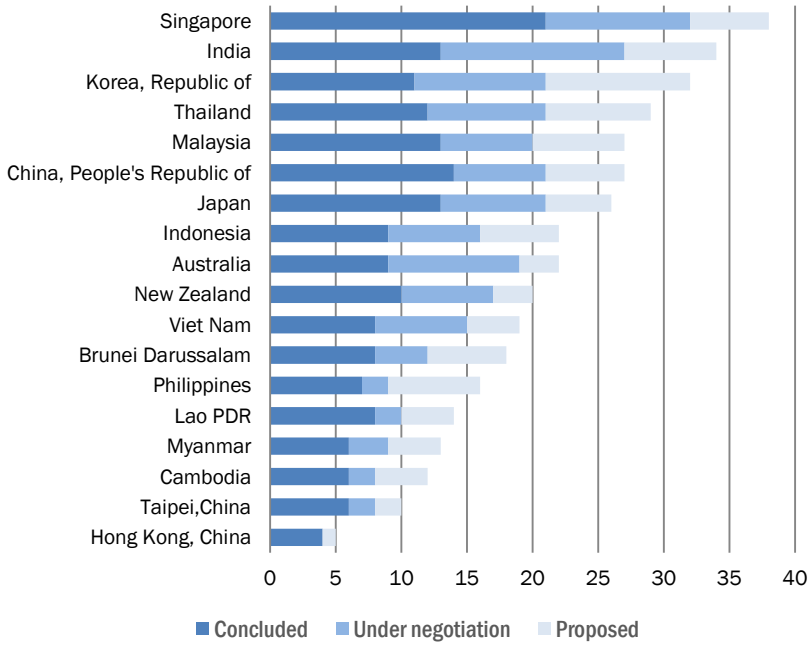
5.4. FTAs in Asia: From the ”noodle bowl” to the ”five snake soup”?

In a separate paper from this project (Park 2013), the development of FTAs in Asia is analysed.[28] We will not repeat its rich evidence and analysis, but use it as a platform for a brief discussion of issues that are relevant in this context. This accompanying paper is recommended as the main source of information on Asian FTAs from the project.

Parallel to their post-war economic miracle, countries in East and South East Asia were for a long time reluctant to enter into bilateral or regional free trade agreements (FTAs). Until the turn of the century, they preferred a multilateral approach to trade and trade policy, supporting the WTO (World Trade Organization) and having just a handful of FTAs. During the last decade, the pattern has changed dramatically. Driven by economic needs from expanding trade and inspired by the worldwide proliferation of FTAs, countries in East and South East Asia changed their minds and started negotiating FTAs, within the region and beyond. Figure 33 shows the new “noodle bowl” of FTAs as of July 2013, for 16 countries in Asia plus Australia and New Zealand.

[28] Park, Innwon, 2013, Regional Trade Agreements in East Asia, NUPI Working Paper.

Fig. 33: The noodle bowl: FTAs by Asia-18 as of July 2013
Data source: aric.adb.org



With Singapore on top with 21 FTAs, aiming at 38, the diagram demonstrates the rapid expansion of such agreements, given that only five of these agreements existed in 2000 (see aric.adb.org, the FTA databank of the Asian Development Bank). With varying coverage, liberalization and rules, this network of agreements stimulates trade but at the same time creates a complex system, with business having to cope with a large variety of regulations and rules. Using the now standard jargon, this is the "noodle bowl" of Asia's trade (building on Bhagwati's original "spaghetti bowl" expression).

An issue is to what extent Asia is currently integrated. How deep are the FTAs, and to what extent are they effectively implemented? The extent of tariff elimination in Asian FTAs varies from 76 to 100%, according to Park (2013). According to Kawai and Wignaraja (2013, 17), preference utilisation rates in Asia are relatively low. While it has been argued that complex ROs that differ across countries are an Asian problem, this study also indicated that only 1/5 of the firms perceived this to be a serious problem. About the depth of Asian FTAs, it is of interest to note that 46% of Asian FTAs in 2012 had comprehensive coverage of agriculture (at least 85 % of tariff lines included), and 41% had comprehensive coverage of services (at least five key sectors covered). Hence on the whole, FTAs in Asia have made large progress during the last decade, but further consolidation into a comprehensive plurilateral agreement is a difficult process that may take time.

There is an ambitious agenda for new "plurilateral" trade agreements that may replace the "noodle bowl":

– First out was the ASEAN+3 plan, including ASEAN plus China, Japan and Korea, with a dialogue starting in 1997.

- Recently, in August 2013, the Ministers of ASEAN+6, adding Australia, New Zealand and India, agreed to implement the RCEP (Regional Comprehensive Economic Partnership) by 2015. A parallel initiative for the same group of countries (led by Japan) is CEPEA (Comprehensive Economic Partnership in East Asia).
- A parallel and partly competing initiative is the TPP (Trans-Pacific Partnership): Building on the 2005 FTA between Brunei, Chile, New Zealand and Singapore; eight more countries have been added in the current negotiations for an ambitious trans-Pacific FTA. Covering seven of the 16 CEPEA countries (Brunei, New Zealand, Singapore, Australia, Japan, Malaysia, Vietnam) and five others (Chile, Canada, Mexico, Peru, USA), the TPP aims to accelerate the process of trans-Pacific integration after the slow process in APEC for similar goals (the Bogor goals).
- As if this was not enough, some have proposed to go even further and create an even wider FTA that covers RCEP as well as TPP. This Free Trade Area of the Asia Pacific (FTAAP) is still a remote possibility, but nevertheless already included in discussions and serious analysis of future integration.

There is a strong drive for further trade integration in Asia, but there are obstacles that have to be overcome. The negotiations involve strong players: China, India, Japan, USA, followed by Korea, Indonesia and others. There is currently considerable rivalry at the Asian FTA scene, with ASEAN and the +3 three of East Asia (China, Japan, Korea) seeking the ”first mover advantage” (Park 2013), and the USA luring at the side via TPP. This is our “five snake soup”: A traditional Cantonese dish, with meat from five different snakes, which were difficult to find at the same time and location. But if they are all present, the result will be superb and success granted. A similar question applies for the FTAs: Will the major players be able to join forces, forget agonies from the past or current conflicts about sea territory, and agree on the path to wider Asian integration?

A danger for Asia may be that comprehensive integration takes time and there are too many intentions that do not materialise. The failure of the Bogor goals of APEC is one case in point. It took 25 years from the establishement of ASEAN to the establishment of AFTA (ASEAN Free Trade Area) in 1992, and almost two decades more until the planned tariff cuts were completed. With the even greater heterogeneity in RCEP, there is a risk that trade policy integration takes very long time. The same could be the case if e.g. the EU was to make a new FTA with Russia and Turkey. Europe may nevertheless be an example to follow, in the sense that bold steps such as EU enlargement have been taken with resolve and determination. According to Park (2013), the formation of an FTA between China, Japan and Korea could be a building block but even if negotiations started in 2013, it is likely that the process will take time. The ASEAN-led RCEP plan is another main track, where the stated ambition is to reach an agreement by 2015, building on the existing ASEAN+1 agreements.

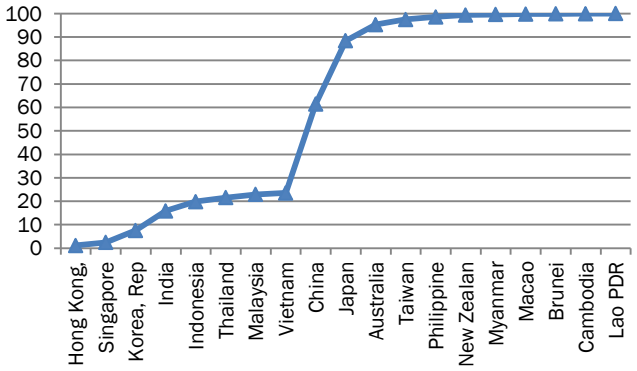
While RCEP includes China, the TPP is an initiative that only includes parts of Asia, and not China. According to Baldwin (2012), the plurilateral ”mega-FTA” approach faces a major problem if China and other emerging economies are left out. In that case we might have a new trade policy era with a partially stagnant WTO, and mega-FTAs in Asia, Europe and North America that do not involve all the important countries. We might add that for smaller or

larger countries outside the reach of these mega-FTAs, it will clearly be a disadvantage to be left out.

For EFTA and Norway, the rise of Asia has created a need for new agreements with countries in the area. EFTA currently has FTAs with Hong Kong (entry into force 2012), Korea (2006) and Singapore (2003), plus ongoing or about-to-start negotiations with India and four more ASEAN countries: Indonesia, Malaysia, Thailand and Vietnam. Switzerland and Iceland have concluded bilateral agreements with China; whereas the China-Norway negotiations have been inactive since late 2010, for well-known reasons.[29] Switzerland also has an agreement with Japan (from 2009).[30] For EFTA and Norway, an issue is which countries that should be on the agenda; another issue is whether only bilateral agreements should be pursued, or is plurilateral agreements such as EFTA-ASEAN is an option. From 2012, Norway and Switzerland were also included as participants in ASEM (Asia-Europe Meeting), an informal dialogue forum of the EU plus Norway, Switzerland, Russia, and 19 Asian countries (Asia-16 and Bangladesh, Pakistan and Mongolia).

Figure 34 shows, as an illustration, how much of Asia-19 that is covered by current and potential future FTAs. We use nominal GDP to measure the economic size of countries. The current three agreements cover 8% of nominal GDP in Asia-19, and the share will rise to 24% when the five agreements under negotiations are completed. Including China and Japan will in a big leap bring coverage up to 88%, and we have seen that Switzerland is already there. Australia will bring the share to above 95 %. Adding also Taiwan, Philippines and New Zealand, 99 % will be passed.

Fig. 34: Norway's (hypothetical) FTA coverage in Asia-19 (% of nominal GDP)
Data source: GDP from World Development Indicators and CIA World Factbook.



Assuming that EFTA succeeds with the five countries under negotiation, the major omissions for Norway will be China, Japan and Australia. For these three trading partners, there are distinct challenges:

- The Norway-China FTA negotiations depend on recovering from the Nobel peace prize effect on Norway-China relations.
- For Japan, liberalization of seafood trade is a sensitive issue and that is the reason why earlier contacts about an FTA have not succeeded.
- Australia is also a significant trade partner, e.g. for services, but has not been on EFTA's or Norway's agenda so far. If an FTA is negotiated, agricultural issues will surely be a

[29] Norway-China was in November 2013 still listed by the Chinese government as ongoing negotiations; see (http://fta.mofcom.gov.cn/topic/ennorway.shtml).
[30] An EU-Japan FTA is also under negotiation.

sensitive issue since Australia is a major agricultural producer and liberalisation would be met by resistance by Norwegian producers.

For China and Japan, only the bilateral option seems possible, but for Australia, an agreement could in principle be made by EFTA. However, Switzerland and Iceland also face political issues on agriculture that might interfere.

According to Melchior et al. (2009) the trade impact of tariff reductions for trade in goods are clearly larger for China compared to Japan and Australia. From Table 10, Chapter 4 we have also seen that Australia is a relatively large market for Norwegian services exports. More than half of this was in transport (shipping), but a significant part was also ”other business services” (see Appendix Table 24). In general, the economic gains from an FTA depend on the magnitude of bilateral trade flows and the reductions in trade costs undertaken, so more information about trade barriers is needed to assess the gains from services trade liberalisation in FTAs with Asia. Potentially, however, there could be significant gains from FTAs with these three Asian countries.

An issue is whether Norway or EFTA should aim for comprehensive agreements with groups of countries in Asia, or stick to a bilateral one-to-one approach. The main arguments in favour of a plurilateral approach is (i) standardisation across countries, avoiding the “noodle bowl effect”; (ii) inclusiveness, covering not only the large and more important partners; and (iii) potentially using cumulative ROs (rules of origin) and thereby facilitating trade with production networks. The main negative aspect is that negotiations become excessively complex and ambitious results are difficult to obtain. Another drawback could be the heterogeneity across countries; perhaps the poorest countries are not yet ready for free trade so inclusiveness may be of mixed value.

For Norway and Asia, TPP is currently not a real option; Norway-USA trade relations have to be pursued across the Atlantic rather than the Pacific. Pending the successful conclusion of RCEP or other mega-FTAs in the future, the issue here is therefore whether Norway or EFTA should try to obtain an agreement with ASEAN. The EU started such negotiations with ASEAN in 2007, but after seven rounds of negotiation, this track was dropped in 2009 and EU re-engaged in bilateral negotiations.[31] Within Asia, China, Japan and Korea follows the ASEAN+1 track, and Australia and New Zealand concluded in 2009 the AANZFTA (ASEAN-Australia-New Zealand Free Trade Agreement). Australia also maintains bilateral FTAs with three ASEAN countries (Thailand, Malaysia, Singapore) and negotiates with Indonesia; showing that plurilateral and bilateral FTAs may be combined. For Norway or EFTA, a closer assessment has to be made in order to sort out whether a plurilateral approach is worthwhile; beyond the scope of this study.

[31] The EU concluded an FTA with Singapore recently, but negotiations continue on investment protection issues. In addition, there are negotiations about FTAs with Thailand, Malaysia and Vietnam. For information, see http://ec.europa.eu/trade/policy/countries-and-regions/agreements/.

5.5. Post-DDA trade policies: Need for a new master plan?

With ever increasing international integration, the slower progress of the WTO and the partial failure of the DDA (Doha Development Agenda) is generally a problem; even if the existing WTO takes care of many trade issues. In the light of international production networks, issues related to investment, taxation and IPR are e.g. of great importance, and there is a need for international coordination in governance. Another field is the proliferation of health or sanitary regulations in international trade; EU and the USA have developed complex and comprehensive systems of inspection and approval, and other countries such as Russia and China are currently developing theirs. In some years, there may be a veterinary ”noodle bowl” as well, with inspectors from all over the planet coming on regular visits to test every food exporter. While this field is already covered by the WTO, new disciplines may be needed but not easily achieved by the WTO. The partial success of the WTO at Bali December 2013 was a relief, but the DDA round has weakened the appetite for new major reforms through the WTO.

An issue is whether plurilateral agreements beyond the mega-FTAs can take care of the needs for global governance in the trade field, if the WTO fails to address the new issues. Baldwin (2012) has argued for a WTO 2.0, as he calls it, apparently a kind of ”Singapore issue WTO” without special and differential treatment (SDT).

The current negotiations on a plurilateral services agreeement represent a test of sectorwise plurilaterals; the TISA negotiations held among 50 WTO members (23 if the EU is counted as one). Among Asia-19, five countries participate (Hong Kong, Taiwan, Korea, Japan, Australia, New Zealand), and China has recently expressed the interest to join. Three parties had, at the end the most recent (4th) round of negotiations in early November 2013, tabled market access offers, and all participants had to do so by the end of November. TISA will be an interesting test of such plurilaterals.

An alternative idea would be to revive the OECD as a tool for trade issues; OECD was crucial for international integration in the financial area around 1990, establishing new codes of great importance.[32] The OECD has expertise on issues such as services trade, and tax and capital flows, which are core issues related to the governance of international value chains. Participation does not necessarily have to be restricted to OECD members; the OECD was a hub for some successful “OECD+” initiatives about 15 years ago, e.g. OECD hosted the Financial Action Task Force on Money Laundering (FATF), established 1989 by G-7, where currently eight Asian countries are members.[33]

With an increasingly complex mix of bilateral, plurilateral and multilateral approaches to trade policy, an issue is how small countries shall be able to mobilise the institutional capacity and versatility to take care of trade policy in all fields: The large players such as the EU and the USA have greater capacity, but small countries cannot have bilaterals with all WTO members; and they cannot check human rights in every corner and for every economic transaction. For Norway, issues within Western Europe are dealt with in the EEA/EU setting.

[32] These were the OECD codes for Liberalization of Capital Movements, and Code of Liberalization of Current Invisible Operations. See www.oecd.org for information.
[33] See http://www.fatf-gafi.org/pages/faq/moneylaundering/.

Beyond Western Europe, however, we mainly have to be our own masters. This is especially important for strategies related to large and important areas such as Asia and Eastern Europe; being heterogeneous but including very important trade partners. With reduced appetite for grand design reforms through the multilateral system, we must rely on a mix of different approaches. Traditionally, global trade policy in small countries such as Norway was to a large extent ”reactive”, responding to the agendas agreed in the multilateral fora. With a weaker capacity for reform in the multilateral system, we need to a larger extent to develop our own ”masterplan” for trade, being proactive rather than reactive. We should become a bit more like Magnus Carlsen – the chess master; not being stuck on one track at the time, but being versatile and always seeing the possibilities on the other side of the board – or in the other trade policy arena.

With trade policy unfolding in bilateral, plurilateral and multilateral settings, a proactive approach means to focus on more on themes rather than institutions: What should e.g. be the aims on investment protection, and how should it be pursued at the different arenas? If tariffs are not reduced by the WTO, who else could do it? In order to support such a more coordinated approach across trade policy arenas, one may also consider how government offices are organised. For example, the Ministry of Foreign Affairs in Norway handles multilateral trade issues while the Ministry of Trade and Industry takes care of the bilaterals. Due to this division of labour, the MFA could become more interested in multilateral approaches while the ”MITI” thinks bilaterally. With a declining reform capacity of the WTO, the MFA may also become less important in trade policy over time. In order to promote institutional capacity and ”versatility” in the new trade policy situation, a reconsideration of coordination and/or the division of labour across ministries could therefore also be warranted.

Being proactive in trade policy and Asian strategies also requires knowledge and a strong analytical capacity, within the government and beyond. In this study, some aspects of Asian economic development and Norway have been examined, but many issues have been left out. There is ample room for more work, and an aim should be to maintain a continuous focus on important issues in the international economy. With respect to Asia and commerce, issues related to global value chains and trade pricing; the organisation of trade and the role of intermediates; institutional issues related to FTAs; and investment issues (e.g. what explains relatively low investment in China); are among many topics that deserve further attention. Within the broader field of economic development in Asia, a long list could be added, including issues of poverty and welfare that were only briefly addressed in Chapter 3.

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Appendix Table 1: The share of Asia-16 in world trade 1970-2010 (% of total world trade)			
Total trade in goods			
	Intra-Asian trade	Extra-regional exports	Extra-regional imports
1970	3.6	8.6	8.8
1980	4.8	9.7	9.8
1990	6.2	13.6	11.3
2000	8.7	15.2	10.7
2010	12.6	18.4	13.7
Manufacturing			
	Intra-Asian trade	Extra-regional exports	Extra-regional imports
1970	2.7	9.2	6.5
1980	3.8	12.4	6.2
1990	5.2	15.3	9.3
2000	8.8	18.0	8.9
2010	12.9	23.0	10.1
Commodities			
	Intra-Asian trade	Extra-regional exports	Extra-regional imports
1970	5.4	7.5	13.0
1980	6.4	5.6	15.3
1990	9.5	8.1	17.8
2000	8.3	6.8	16.0
2010	11.7	7.5	22.5
Source: Own calculations based on the data set described in Melchior (2012). Original trade data from WITS/COMTRADE.			

Appendix Table 2: Asia-19 and selected countries: Share (%) in world FDI stocks. Data source: UNCTAD.						
Inward FDI stock						
	1980	1990	2000	2010	2011	2012
Asia-19	33.45	19.32	16.23	20.00	20.89	21.57
China	0.15	1.00	2.57	2.88	3.41	3.65
China, Hong Kong SAR	25.47	9.70	6.55	5.70	5.67	6.24
China, Macao SAR	0.40	0.14	0.04	0.07	0.07	0.07
China, Taiwan	0.34	0.47	0.26	0.32	0.27	0.26
Korea, Republic of	0.16	0.25	0.58	0.66	0.64	0.65
India	0.06	0.08	0.22	1.01	0.99	0.99
Brunei Darussalam	0.00	0.00	0.05	0.06	0.06	0.06
Cambodia	0.01	0.00	0.02	0.03	0.03	0.04
Indonesia	0.65	0.42	0.33	0.79	0.89	0.90
Japan	0.47	0.47	0.67	1.05	1.08	0.90
Lao People's Dem. Rep.	0.00	0.00	0.01	0.01	0.01	0.01
Malaysia	0.74	0.50	0.70	0.50	0.55	0.58
Myanmar	0.00	0.01	0.04	0.04	0.05	0.05
Philippines	0.18	0.16	0.18	0.13	0.14	0.14
Singapore	0.77	1.47	1.47	2.91	3.00	2.99
Thailand	0.14	0.40	0.41	0.70	0.72	0.70
Viet Nam	0.00	0.01	0.20	0.28	0.31	0.32
Australia	3.55	3.87	1.58	2.52	2.65	2.68
New Zealand	0.34	0.38	0.33	0.34	0.35	0.36
Outward FDI stock						
	1980	1990	2000	2010	2011	2012
Asia-19	7.13	14.44	12.72	16.74	18.42	18.88
China	0.00	0.21	0.35	1.50	1.98	2.16
China, Hong Kong SAR	0.03	0.57	5.43	4.92	5.27	5.55
China, Macao SAR	0.00	0.00	0.00	0.00	0.00	0.00
China, Taiwan	2.37	1.45	0.83	0.90	0.99	0.96
Korea, Republic of	0.02	0.11	0.27	0.68	0.80	0.83
India	0.01	0.01	0.02	0.46	0.51	0.50
Brunei Darussalam	0.00	0.00	0.01	0.00	0.00	0.00
Cambodia	0.00	0.00	0.00	0.00	0.00	0.00
Indonesia	0.00	0.00	0.09	0.03	0.03	0.05
Japan	3.57	9.63	3.47	3.93	4.49	4.47
Lao People's Dem. Rep.	0.00	0.00	0.00	0.00	0.00	..
Malaysia	0.06	0.04	0.20	0.46	0.50	0.51
Myanmar	0.00	0.00	0.00	0.00	0.00	0.00
Philippines	0.02	0.02	0.01	0.03	0.03	0.04
Singapore	0.14	0.37	0.71	1.67	1.76	1.70
Thailand	0.00	0.02	0.04	0.11	0.19	0.22
Viet Nam	0.00	0.00	0.00	0.00	0.00	0.00
Australia	0.91	1.79	1.20	1.96	1.77	1.80
New Zealand	0.00	0.21	0.11	0.08	0.09	0.08

Appendix Table 3: Regional composition of FDI in East and South East Asia in 2011-2012				
	Value in million USD			
	East and South East Asia as destination		East and South East Asia as investor	
	2011	2012	2011	2012
World	206049	147608	115133	118476
Developed economies	133212	99091	16726	43863
European Union	58072	38248	7299	18768
Germany	22308	12020	1129	249
United Kingdom	11621	8372	1175	15003
United States	32580	27628	5961	21525
Australia	2230	1473	1410	2070
Japan	30416	24646	533	677
Developing economies	71605	47824	91844	69246
Africa	400	166	12630	4616
East and South-East Asia	55390	43666	55390	43666
South Asia	10973	2388	9197	8211
Transition economies	1232	694	6563	5368
	% of total for the region			
	East and South East Asia as destination		East and South East Asia as investor	
	2011	2012	2011	2012
World	100	100	100	100
Developed economies	64.65	67.13	14.53	37.02
European Union	28.18	25.91	6.34	15.84
Germany	10.83	8.14	0.98	0.21
United Kingdom	5.64	5.67	1.02	12.66
United States	15.81	18.72	5.18	18.17
Australia	1.08	1.00	1.22	1.75
Japan	14.76	16.70	0.46	0.57
Developing economies	34.75	32.40	79.77	58.45
Africa	0.19	0.11	10.97	3.90
East and South-East Asia	26.88	29.58	48.11	36.86
South Asia	5.33	1.62	7.99	6.93
Transition economies	0.60	0.47	5.70	4.53
Source: Data in Million USD from UNCTAD (2013), 44.				

Appendix Table 4: Sector composition of greenfield FDI in East and South East Asia, 2011-2012.				
Value in million USD				
	Asia as destination		Asia as investor	
	2011	2012	2011	2012
Total	206049	147608	115133	118476
Primary	4444	363	5158	3022
Mining, quarrying and petroleum	4444	363	5158	3022
Manufacturing	127673	70614	73297	43443
Chemicals and chemical products	21615	9886	6495	10733
Metals and metal products	16836	8902	14522	6799
Electrical and electronic equipment	21768	9361	11455	11468
Motor vehicles and other transport equipment	17578	17716	9022	4797
Other manufacturing	49876	24749	31803	9646
Services	73932	76632	36678	72011
Electricity, gas and water	4567	4507	7697	22813
Construction	7021	19652	3840	29147
Transport, storage and communications	19730	13096	7653	2950
Finance	16651	13658	5371	6074
Other services	25963	25719	12117	11027
% of total for the region				
	Asia as destination		Asia as investor	
	2011	2012	2011	2012
Total	100	100	100	100
Primary	2.16	0.25	4.48	2.55
Mining, quarrying and petroleum	2.16	0.25	4.48	2.55
Manufacturing	61.96	47.84	63.66	36.67
Chemicals and chemical products	10.49	6.70	5.64	9.06
Metals and metal products	8.17	6.03	12.61	5.74
Electrical and electronic equipment	10.56	6.34	9.95	9.68
Motor vehicles and other transport equipment	8.53	12.00	7.84	4.05
Other manufacturing	24.21	16.77	27.62	8.14
Services	35.88	51.92	31.86	60.78
Electricity, gas and water	2.22	3.05	6.69	19.26
Construction	3.41	13.31	3.34	24.60
Transport, storage and communications	9.58	8.87	6.65	2.49
Finance	8.08	9.25	4.67	5.13
Other services	12.60	17.42	10.52	9.31
Source: Data in Million USD from UNCTAD (2013), 44.				

Appendix Table 5a. Asia`s share of world service sector trade, 2005-2011 (BPM5, annual data ending Dec each year, million USD).												
	ASIA-19		ASIA-16		ASEAN (10)		ASEAN (5)		China, Japan, Korea, Rep.		Australia, New Zealand, India	
Year	Relative Export	Relative Import	Relative Export	Relative Import	Relative Export	Relative Import	Relative Export	Relative Import	Relative Export	Relative Import	Relative Export	Relative Import
2005	20,9 %	22,8 %	17,1 %	20,1 %	4,6 %	5,5 %	4,3 %	5,3 %	9,0 %	11,1 %	3,5 %	3,4 %
2006	21,3 %	22,7 %	17,5 %	20,1 %	4,7 %	5,6 %	4,4 %	5,3 %	9,0 %	11,0 %	3,8 %	3,5 %
2007	21,9 %	22,7 %	18,1 %	20,3 %	5,0 %	5,5 %	4,7 %	5,3 %	9,2 %	11,1 %	3,9 %	3,6 %
2008	22,6 %	23,2 %	18,9 %	20,9 %	5,0 %	5,6 %	4,8 %	5,3 %	9,8 %	11,3 %	4,1 %	3,9 %
2009	22,4 %	23,2 %	18,6 %	20,8 %	5,2 %	5,5 %	5,0 %	5,2 %	9,3 %	11,5 %	4,0 %	3,9 %
2010	25,1 %	25,5 %	20,6 %	22,9 %	5,7 %	6,0 %	5,4 %	5,7 %	10,3 %	12,1 %	4,7 %	4,8 %
2011	*11,4 %*	*11,4 %*	*7,6 %*	*9,0 %*	*1,8 %*	*2,3 %*	*1,6 %*	*2,0 %*	*5,5 %*	*6,5 %*	*0,2 %*	*0,3 %*

Source: The International Monetary Fund (IMF) (through the CEIC database) and Word Development Indicators. Some variation in data availability for the independent countries the last years (2009-2011): Brunei has data only up to year 2009, Australia, Cambodia, China, India, Lao, Macao, Myanmar, Singapore and Thailand have data up until year 2010. The remaining countries have a full series. Especially for year 2011, for the largest aggregates, the relative values will thus be incomplete. They are added for information.

Appendix Table 5b: Asia - services trade by sector and country – value in million USD, 2012 (BPM6), and shares of total for exports. For net trade: net export ratios (x-m)/(x+m) (NET)														
Country		Total Services	Manuf. Services on Physical Inputs Owned by Others	Mainten. & Repair, n.i.e.	Trans-port	Travel	Const-ruction	Insurance & Pension	Financial	Charges for the use of Intellectual Property, n.i.e.	Telecom. , Computer & Inform.	Other Business	Personal, Cultural & Recreational	Governm. goods & Services, n.i.e
Indonesia	Balance/NET	-10832	1,00	-0,67	-0,54	0,10	0,15	-0,96	-0,44	-0,94	-0,05	-0,01	-0,14	0,0043
	Export	23627	1,69 %	0,48 %	16,18 %	35,23 %	3,65 %	0,10 %	0,80 %	0,25 %	5,48 %	32,76 %	0,89 %	2,50 %
	Import	34460	0,00 %	1,66 %	37,56 %	19,65 %	1,83 %	3,18 %	1,41 %	5,22 %	4,19 %	22,77 %	0,82 %	1,70 %
Malaysia	Balance/NET	-4536	-	0,07	-0,51	0,27	-0,28	-0,28	-0,44	-0,84	0,01	-0,04	-0,55	-4,28
	Export	37884	0,00 %	0,70 %	11,68 %	53,46 %	3,46 %	1,43 %	0,38 %	0,36 %	7,44 %	20,42 %	0,46 %	0,22 %
	Import	42420	0,00 %	0,55 %	31,80 %	27,22 %	5,54 %	2,25 %	0,87 %	3,61 %	6,48 %	19,76 %	1,41 %	-0,32 %
Thailand	Balance/NET	-3222	-	-	-0,65	0,69	0,32	-0,78	-0,02	-0,88	-0,03	-0,14	0,56	0,21
	Export	49517	0,00 %	0,00 %	12,07 %	67,92 %	0,89 %	0,77 %	0,75 %	0,49 %	0,98 %	15,28 %	0,17 %	0,68 %
	Import	52739	0,00 %	0,00 %	54,07 %	11,62 %	0,43 %	5,78 %	0,74 %	6,85 %	0,97 %	19,08 %	0,04 %	0,42 %
Vietnam*	Balance/NET	-2980	-	-	-	-	-	-	-	-	-	-	-	-
	Export	8879	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
	Import	11859	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Myanmar*	Balance/NET	-418,5	1,00	-	-0,62	0,39	1,00	-	-	-	-	-0,70	-1,00	0,14
	Export	671,76	20,35 %	0,00 %	25,88 %	41,77 %	2,23 %	0,00 %	0,00 %	0,00 %	0,00 %	5,09 %	0,00 %	4,69 %
	Import	1090,2	0,00 %	0,00 %	68,86 %	11,32 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	17,65 %	0,01 %	2,17 %
Philippines	Balance/NET	3905	-	-0,13	-0,51	-0,22	0,45	-0,60	-0,48	-0,97	0,76	0,73	0,40	-0,92
	Export	18600	0,00 %	0,47 %	8,48 %	21,58 %	0,60 %	0,48 %	0,58 %	0,04 %	13,54 %	53,74 %	0,42 %	0,06 %
	Import	14695	0,00 %	0,78 %	33,36 %	42,51 %	0,29 %	2,48 %	2,06 %	3,43 %	2,39 %	10,45 %	0,23 %	2,02 %

Continued, Appendix Table 5b: Asia - services trade by sector and country...

		Total Services	Manuf. Services on Physical Inputs Owned by Others	Mainten. & Repair, n.i.e.	Trans-port	Travel	Const-ruction	Insurance & Pension	Financial	Charges for the use of Intellectual Property, n.i.e.	Telecom. , Computer & Inform.	Other Business	Personal, Cultural & Recreational	Governm. goods & Services, n.i.e
Lao PDR*	Balance/NET	218,93	-	-	0,39	0,26	-0,32	-0,13	-0,42	-	0,57	-	-	0,62
	Export	549,64	0,00 %	0,00 %	9,33 %	73,90 %	2,19 %	4,45 %	0,11 %	0,00 %	5,65 %	0,00 %	0,00 %	4,38 %
	Import	330,71	0,00 %	0,00 %	6,89 %	71,70 %	6,98 %	9,69 %	0,44 %	0,00 %	2,58 %	0,00 %	0,00 %	1,72 %
Cambodia	Balance/NET	999,85	-	-	-0,40	0,72	-0,80	-0,97	0,84	-0,49	0,07	0,39	-0,39	0,40
	Export	2545,4	0,00 %	0,00 %	14,02 %	70,70 %	0,65 %	0,06 %	2,38 %	0,15 %	1,78 %	6,64 %	0,10 %	3,53 %
	Import	1545,6	0,00 %	0,00 %	54,04 %	18,78 %	9,77 %	6,10 %	0,35 %	0,72 %	2,57 %	4,80 %	0,37 %	2,49 %
Singapore	Balance/NET	387,7	-	0,80	0,09	-0,08	0,34	-0,20	0,66	-0,82	-0,08	-0,10	0,02	0,21
	Export	119075	0,00 %	5,74 %	35,68 %	16,18 %	1,41 %	2,50 %	12,46 %	1,38 %	3,62 %	20,34 %	0,43 %	0,26 %
	Import	118688	0,00 %	0,62 %	29,76 %	18,88 %	0,70 %	3,77 %	2,54 %	13,91 %	4,30 %	24,92 %	0,41 %	0,17 %
Brunei**	Balance/NET	-519,3	-	-	0,01	-0,30	-	-0,05	-1,00	-1,00	0,16	-0,18	-	-1,00
	Export	914,91	0,00 %	0,00 %	49,38 %	27,80 %	0,00 %	1,43 %	0,00 %	0,00 %	2,37 %	19,02 %	0,00 %	0,00 %
	Import	1434,2	0,00 %	0,00 %	31,00 %	33,27 %	0,00 %	1,01 %	0,49 %	0,53 %	1,09 %	17,35 %	0,00 %	15,25 %
Korea	Balance/NET	2676,2	-	0,69	0,14	-0,17	0,62	-0,25	0,52	-0,42	-0,14	-0,25	0,04	0,05
	Export	110854	0,00 %	0,19 %	36,96 %	12,84 %	19,76 %	0,45 %	2,88 %	3,10 %	0,95 %	20,64 %	1,13 %	1,11 %
	Import	108178	0,00 %	0,03 %	28,52 %	18,58 %	4,76 %	0,77 %	0,94 %	7,75 %	1,28 %	35,25 %	1,08 %	1,04 %
Japan	Balance/NET	-50500	-0,90	-0,60	-0,16	-0,31	0,20	-1,11	0,18	0,23	-0,42	-0,28	-0,74	0,25
	Export	134190	0,36 %	0,50 %	29,92 %	10,87 %	8,64 %	-0,30 %	3,46 %	23,77 %	1,73 %	18,98 %	0,14 %	2,31 %
	Import	184690	4,74 %	0,09 %	29,97 %	15,11 %	4,20 %	3,99 %	1,75 %	10,77 %	3,07 %	24,37 %	0,65 %	1,01 %

Continued, Appendix Table 5b: Asia - services trade by sector and country...														
		Total Services	Manuf. Services on Physical Inputs Owned by Others	Mainten. & Repair, n.i.e.	Trans-port	Travel	Const-ruction	Insurance & Pension	Financial	Charges for the use of Intellectual Property, n.i.e.	Telecom. , Computer & Inform.	Other Business	Personal, Cultural & Recreational	Governm. goods & Services, n.i.e
China	Balance/NET	-85753	1,00	0,16	-0,38	-0,34	0,54	-0,72	-0,01	-0,89	0,49	0,11	-0,64	-0,02
	Export	196302	9,17 %	0,62 %	19,82 %	25,49 %	6,24 %	1,70 %	0,96 %	0,53 %	8,28 %	26,64 %	0,06 %	0,50 %
	Import	282055	0,00 %	0,31 %	30,44 %	36,16 %	1,28 %	7,30 %	0,68 %	6,29 %	1,95 %	15,02 %	0,20 %	0,37 %
India*	Balance/NET	12733	-	-	-0,53	0,12	-0,15	-0,40	-0,14	-0,81	0,90	-0,08	0,06	-0,17
	Export	137325	0,00 %	0,00 %	12,75 %	12,76 %	0,61 %	1,87 %	4,54 %	0,22 %	45,70 %	15,79 %	5,33 %	0,43 %
	Import	124592	0,00 %	0,00 %	45,51 %	11,01 %	0,91 %	4,86 %	6,59 %	2,26 %	2,57 %	20,43 %	5,18 %	0,68 %
Australia	Balance/NET	-9027	0,92	-0,82	-0,42	0,08	1,00	-0,24	0,21	-0,63	-0,06	-0,03	-0,31	-0,02
	Export	51688	0,05 %	0,08 %	12,46 %	60,92 %	0,15 %	0,81 %	2,64 %	1,78 %	3,37 %	14,36 %	1,69 %	1,70 %
	Import	60715	0,00 %	0,70 %	25,80 %	43,81 %	0,00 %	1,13 %	1,47 %	6,75 %	3,23 %	12,89 %	2,71 %	1,51 %
New Zealand	Balance/NET	-980,1	-	-	-0,21	0,19	0,13	-0,88	0,15	-0,49	-0,04	-0,22	0,72	0,16
	Export	11035	0,00 %	0,00 %	18,33 %	49,54 %	0,16 %	0,30 %	4,17 %	2,81 %	5,60 %	13,91 %	4,55 %	1,46 %
	Import	12015	0,00 %	0,00 %	25,74 %	30,94 %	0,11 %	4,25 %	2,85 %	7,60 %	5,55 %	19,98 %	0,69 %	0,98 %
Hong Kong*	Balance/NET	16299	-1,00	0,60	0,28	0,18	0,29	-0,17	0,58	-0,63	0,27	0,05	0,67	-0,32
	Export	90707	0,00 %	0,34 %	35,42 %	30,50 %	0,16 %	0,94 %	16,06 %	0,51 %	2,42 %	13,07 %	0,52 %	0,08 %
	Import	74408	24,08 %	0,10 %	24,07 %	25,76 %	0,11 %	1,60 %	5,22 %	2,70 %	1,69 %	14,35 %	0,13 %	0,19 %
ASEAN***	Balance/NET	-16998,0	1,00	0,63	-0,24	0,24	0,02	-0,43	0,55	-0,84	0,06	0,0025	-0,15	0,01
	Export	262263,71	0,20 %	2,78 %	22,62 %	33,64 %	1,70 %	1,55 %	5,99 %	0,80 %	4,39 %	21,98 %	0,40 %	0,56 %
	Import	279261,71	0,00 %	0,59 %	34,81 %	19,42 %	1,52 %	3,61 %	1,64 %	8,59 %	3,66 %	20,74 %	0,51 %	0,52 %

Continued, Appendix Table 5b: Asia - services trade by sector and country...														
		Total Services	Manuf. Services on Physical Inputs Owned by Others	Mainten. & Repair, n.i.e.	Trans-port	Travel	Const-ruction	Insurance & Pension	Financial	Charges for the use of Intellectual Property, n.i.e.	Telecom. , Computer & Inform.	Other Business	Personal, Cultural & Recreational	Governm. goods & Services, n.i.e
Japan, Korea, China	Balance/NET	-133577,0	0,36	0,32	-0,18	-0,31	0,47	-0,79	0,22	-0,12	0,22	-0,11	-0,31	0,14
	Export	441346,00	4,19 %	0,47 %	27,20 %	17,86 %	10,36 %	0,78 %	2,20 %	8,24 %	4,45 %	22,80 %	0,35 %	1,21 %
	Import	574923,00	1,52 %	0,19 %	29,93 %	26,09 %	2,87 %	5,01 %	1,07 %	8,01 %	2,18 %	21,83 %	0,51 %	0,70 %

*Source: International Monetary Fund (IMF) (through the CEIC database). Net Export Ratio = (Export - Import/Export + Import). *2011. **2009. ***2011 & 2009 for ASEAN; Indonesia, Malaysia, Singapore, Thailand, Vietnam, Philippines, Myanmar, Brunei, Laos, Cambodia.*

Appendix Table 5c. Asia-19`s share of world service sector trade by country, 2005-2011 (BPM5, annual data ending Dec each year, million USD).								
Country		2005	2006	2007	2008	2009	2010	2011
Australia	% of Export	1 .19 %	1 .12 %	1 .15 %	1 .15 %	1 .17 %	1 .25 %	
	% of Import	1 .22 %	1 .15 %	1 .21 %	1 .29 %	1 .24 %	1 .39 %	
Brunei	% of Export	0 .02 %	0 .03 %	0 .02 %	0 .02 %	0 .03 %		
	% of Import	0 .04 %	0 .04 %	0 .04 %	0 .04 %	0 .04 %		
Philippines	% of Export	0 .17 %	0 .22 %	0 .28 %	0 .25 %	0 .31 %	0 .36 %	0 .36 %
	% of Import	0 .23 %	0 .23 %	0 .23 %	0 .23 %	0 .26 %	0 .31 %	0 .29 %
Hong Kong	% of Export	2 .45 %	2 .47 %	2 .41 %	2 .34 %	2 .43 %	2 .73 %	2 .79 %
	% of Import	1 .36 %	1 .33 %	1 .29 %	1 .25 %	1 .30 %	1 .38 %	1 .36 %
India	% of Export	2 .02 %	2 .37 %	2 .47 %	2 .71 %	2 .62 %	3 .18 %	
	% of Import	1 .89 %	2 .10 %	2 .15 %	2 .35 %	2 .39 %	3 .15 %	
Indonesia	% of Export	0 .50 %	0 .39 %	0 .36 %	0 .39 %	0 .37 %	0 .43 %	0 .47 %
	% of Import	0 .88 %	0 .77 %	0 .74 %	0 .75 %	0 .68 %	0 .70 %	0 .79 %
Japan	% of Export	4 .24 %	3 .98 %	3 .67 %	3 .77 %	3 .61 %	3 .64 %	3 .34 %
	% of Import	5 .36 %	4 .85 %	4 .56 %	4 .52 %	4 .39 %	4 .25 %	4 .07 %
Cambodia	% of Export	0 .04 %	0 .04 %	0 .04 %	0 .04 %	0 .05 %	0 .04 %	
	% of Import	0 .03 %	0 .03 %	0 .03 %	0 .03 %	0 .03 %	0 .03 %	
China	% of Export	2 .86 %	3 .13 %	3 .47 %	3 .73 %	3 .64 %	4 .40 %	
	% of Import	3 .35 %	3 .61 %	3 .94 %	4 .24 %	4 .69 %	5 .22 %	
Lao PDR	% of Export	0 .01 %	0 .01 %	0 .01 %	0 .01 %	0 .01 %	0 .01 %	
	% of Import	0 .002 %	0 .001 %	0 .001 %	0 .003 %	0 .004 %	0 .01 %	
Malaysia	% of Export	0 .75 %	0 .74 %	0 .84 %	0 .77 %	0 .81 %	0 .84 %	0 .81 %
	% of Import	0 .88 %	0 .85 %	0 .87 %	0 .81 %	0 .81 %	0 .87 %	0 .92 %
Myanmar	% of Export	0 .01 %	0 .01 %	0 .01 %	0 .01 %	0 .01 %	0 .01 %	
	% of Import	0 .02 %	0 .02 %	0 .02 %	0 .02 %	0 .02 %	0 .02 %	
New Zealand	% of Export	0 .33 %	0 .28 %	0 .27 %	0 .24 %	0 .23 %	0 .23 %	0 .23 %
	% of Import	0 .33 %	0 .28 %	0 .28 %	0 .26 %	0 .24 %	0 .25 %	0 .27 %
Singapore	% of Export	2 .14 %	2 .25 %	2 .42 %	2 .52 %	2 .64 %	2 .89 %	
	% of Import	2 .21 %	2 .33 %	2 .26 %	2 .33 %	2 .35 %	2 .60 %	
Korea	% of Export	1 .91 %	1 .93 %	2 .07 %	2 .30 %	2 .07 %	2 .25 %	2 .18 %
	% of Import	2 .38 %	2 .51 %	2 .57 %	2 .57 %	2 .37 %	2 .59 %	2 .41 %

Continues next page...

Continued, Appendix Table 5c: Asia-19`s share of world service sector trade by country...								
Taiwan	% of Export	0.99 %	0.99 %	0.95 %	0.93 %	0.89 %	1.04 %	1.06 %
	% of Import	1.30 %	1.17 %	1.06 %	0.93 %	0.88 %	1.02 %	1.02 %
Thailand	% of Export	0.77 %	0.83 %	0.86 %	0.84 %	0.85 %	0.88 %	
	% of Import	1.07 %	1.17 %	1.15 %	1.22 %	1.08 %	1.21 %	
Vietnam	% of Export	0.16 %	0.17 %	0.17 %	0.18 %	0.16 %	0.19 %	0.20 %
	% of Import	0.18 %	0.18 %	0.21 %	0.21 %	0.24 %	0.27 %	0.29 %
Macao	% of Export	0.33 %	0.36 %	0.40 %	0.45 %	0.53 %	0.74 %	
	% of Import	0.10 %	0.11 %	0.14 %	0.15 %	0.15 %	0.20 %	

Source: The International Monetary Fund (IMF) (through the CEIC database) and Word Development Indicators. Some variation in data availability for the independent countries the last years (2009-2011): Brunei has data only up to year 2009, Australia, Cambodia, China, India, Lao, Macao, Myanmar, Singapore and Thailand have data up until year 2010. The remaining countries have a full series.

Appendix Table 6: Regressions on income convergence in Asia				
	(1)	(2)	(3)	(4)
Log GDP/cap	-0.0114***	-0.0178**	0.00205	-0.0142***
	(-6.14)	(-3.08)	(0.81)	(-5.62)
Constant	0.157***	0.211***	-0.0356	0.181***
	(9.51)	(4.33)	(-1.81)	(7.70)
N	85	85	12	15
R^2	0.280	0.244	0.0545	0.641
Period	Panel	Panel; FE	1980-2012	2000-12

Notes: The Table shows regressions of rates of growth (in proportions) on the logarithm of initial GDP per capita. Column (1) considers. Column (2) use the same sample, but employs country specific dummies (i.e. a fixed effects estimator) to control for unobserved heterogeneity. Columns (3) and (4) consider the periods 1980-2012 and 2000-2012.

*Heteroskedasticity-robust t-values are reported in in parentheses. Significance denoted by * for 5 %, ** for 1 % and *** for 0.1 %.*

Appendix Table 7: Sector aggregation used for the analysis of trade				
3 sectors	4 sectors	8 sectors		
Short name	Short name	Short name	HS chapters, headings or positions included	Abbreviation in tables
Commodities	Agriculture	Seafood	03, 051191, 150410-20, 1603-05, 230120	fish
		Agriculture	01-24 except seafood	agr
	Heavy industries	Chemicals and plastic	28-39	chem
		Oil and gas	2709-2711	oil
		Metals and other minerals	25, 26, 27 ex. oil & gas, 72, 7401-13, 75, 7601-14, 78-81	metal
Light industries	Light industries	Textile goods, shoes, leather goods, etc.	41-43, 50-67	tex
		Other industries	40, 44-49, 68-71, 73, 7414-19, 7615-16, 82, 83, 91-97	other
Machinery and transport equipment	Machinery and transport equipment	Machinery	84, 85, 90	mach
		Transport equipment	86-89	tran

Note: HS refers to the Harmonized System of trade classification. Vintages HS1996 and HS2007 are used in the analysis

Appendix Table 8: Sector composition of trade in goods.
For 16 Asian countries (2010). Figures in % of total exports/imports for each country.
Note: See Appendix Table 7 for classification.

Total exports

	total	agr	fish	chem	metal	oil	mach	trans	tex	other
Asia (16)	100	4	1	9	8	6	40	10	9	12
Australia	100	10	0	6	51	10	5	2	2	9
China	100	2	1	7	4	1	48	6	17	15
Hong Kong	100	4	0	12	6	1	20	0	5	52
Indonesia	100	14	2	6	24	17	10	3	9	16
India	100	8	1	12	11	17	8	7	14	21
Japan	100	0	0	11	7	2	42	23	1	8
Cambodia	100	2	0	0	0	0	3	2	58	35
Korea, Rep.	100	1	0	11	7	7	43	22	3	6
Myanmar	100	16	4	0	1	39	0	0	5	35
Malaysia	100	16	4	0	1	39	0	0	5	35
New Zealand	100	11	0	8	3	16	46	1	2	12
Taiwan	100	53	4	5	5	5	7	1	4	14
Philippines	100	1	1	15	6	5	55	4	5	9
Singapore	100	6	1	3	5	1	41	4	3	6
Thailand	100	2	0	12	2	16	52	3	1	6
Vietnam	100	10	4	9	3	4	34	10	5	21

Total imports

	total	agr	fish	chem	metal	oil	mach	trans	tex	other
Asia (16)	100	5	1	11	12	17	35	4	4	10
Australia	100	5	1	12	3	13	29	14	5	16
China	100	4	0	12	17	13	37	5	3	7
Hong Kong	100	3	1	6	2	3	59	1	10	15
Indonesia	100	8	0	13	8	20	28	8	5	8
India	100	4	0	10	10	29	17	3	1	24
Japan	100	7	2	10	12	25	24	3	6	9
Cambodia	100	7	0	7	4	7	14	8	41	12
Korea, Rep.	100	4	1	10	16	25	30	3	3	7
Myanmar	100	8	0	12	9	22	19	9	8	13
Malaysia	100	8	0	12	9	22	19	9	8	13
New Zealand	100	7	0	10	9	9	47	5	1	10
Taiwan	100	10	0	14	3	15	24	13	6	13
Philippines	100	4	0	15	14	17	38	2	2	7
Singapore	100	11	0	10	7	16	42	6	2	6
Thailand	100	3	0	7	2	26	46	4	1	8
Vietnam	100	4	1	12	11	16	33	5	3	14

Source: Own calculations based on data from WITS/COMTRADE.

Appendix Table 9: The magnitude of trade flows in Asia, by country and sector.
For 16 Asian countries (2010). Figures in % of total Asia (16) exports or imports.
Note: See Appendix Table 7 for classification.
Note: Shaded rows/columns show sector/country shares.

Total exports of Asia (16)

	total	agr	fish	chem	metal	oil	mach	trans	tex	other
Asia (16)	100.0	3.9	0.9	9.1	7.8	5.8	40.1	9.5	8.6	12.2
Australia	4.5	0.5	0.0	0.3	2.3	0.5	0.2	0.1	0.1	0.4
China	34.4	0.7	0.3	2.4	1.3	0.4	16.4	1.9	5.8	5.1
Hong Kong	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
Indonesia	3.4	0.5	0.1	0.2	0.8	0.6	0.3	0.1	0.3	0.6
India	4.8	0.4	0.1	0.6	0.5	0.8	0.4	0.3	0.7	1.0
Japan	16.8	0.1	0.0	1.9	1.2	0.3	7.0	3.8	0.2	1.4
Cambodia	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Korea, Rep.	10.2	0.1	0.0	1.1	0.7	0.7	4.4	2.2	0.3	0.6
Myanmar	0.2	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1
Malaysia	4.3	0.5	0.0	0.3	0.1	0.7	2.0	0.1	0.1	0.5
New Zealand	0.6	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Taiwan	5.7	0.0	0.0	0.8	0.3	0.3	3.1	0.2	0.3	0.5
Philippines	1.1	0.1	0.0	0.0	0.1	0.0	0.5	0.0	0.0	0.1
Singapore	7.7	0.1	0.0	0.9	0.1	1.2	4.0	0.2	0.1	0.4
Thailand	4.3	0.4	0.2	0.4	0.1	0.2	1.4	0.4	0.2	0.9
Vietnam	1.6	0.2	0.1	0.1	0.1	0.1	0.2	0.0	0.4	0.3

Total imports of Asia (16)

	total	agr	fish	chem	metal	oil	mach	trans	tex	other
Asia (16)	100.0	4.9	0.8	10.6	11.6	17.4	35.0	4.3	4.1	10.2
Australia	4.1	0.2	0.0	0.5	0.1	0.5	1.2	0.6	0.2	0.6
China	28.0	1.2	0.1	3.3	4.9	3.6	10.4	1.4	0.7	1.8
Hong Kong	9.6	0.3	0.1	0.6	0.2	0.3	5.7	0.1	0.9	1.4
Indonesia	2.9	0.2	0.0	0.4	0.2	0.6	0.8	0.2	0.2	0.2
India	7.6	0.3	0.0	0.8	0.7	2.2	1.3	0.2	0.1	1.8
Japan	15.0	1.1	0.3	1.4	1.8	3.7	3.6	0.4	1.0	1.4
Cambodia	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Korea, Rep.	9.2	0.4	0.1	0.9	1.5	2.3	2.7	0.3	0.3	0.7
Myanmar	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Malaysia	3.6	0.3	0.0	0.3	0.3	0.3	1.7	0.2	0.1	0.4
New Zealand	0.7	0.1	0.0	0.1	0.0	0.1	0.2	0.1	0.0	0.1
Taiwan	5.4	0.2	0.0	0.8	0.7	0.9	2.1	0.1	0.1	0.4
Philippines	1.3	0.1	0.0	0.1	0.1	0.2	0.5	0.1	0.0	0.1
Singapore	6.7	0.2	0.0	0.5	0.2	1.8	3.1	0.2	0.1	0.5
Thailand	3.9	0.1	0.0	0.5	0.4	0.6	1.3	0.2	0.1	0.5
Vietnam	1.8	0.2	0.0	0.3	0.2	0.2	0.5	0.1	0.2	0.2

Source: Own calculations based on data from WITS/COMTRADE.

Appendix Table 10: Annual growth rates for trade in goods by country and sector, 2000-2010. For 15 Asian countries (2010). Figures in %, based on data in constant USD.
Note: See Appendix Table 7 for classification.
Note: Shaded rows/columns show sector/country growth rates.

Exports of Asia (15)

	total	agr	fish	chem	metal	oil	mach	trans	tex	other
Asia (15)	8.6	9.5	5.4	10.4	13.9	12.4	7.1	8.7	6.0	10.2
Australia	10.0	3.7	-2.9	5.7	17.6	7.8	3.4	0.8	-1.4	10.2
China	17.6	9.4	11.2	17.2	14.7	13.7	22.4	22.6	12.0	16.1
Hong Kong	-6.7	3.3	-13.8	2.9	5.1	13.6	-10.6	-28.3	-26.2	7.4
Indonesia	7.3	16.5	2.6	7.7	19.7	3.9	1.8	19.0	1.0	5.2
India	15.3	11.6	3.6	16.2	22.5	35.8	18.8	28.8	6.6	13.4
Japan	2.5	5.1	6.7	5.4	8.9	24.2	0.0	3.3	-1.7	4.6
Cambodia	12.4	25.2	-9.1	37.8	57.1	-10.7	36.4	34.5	9.8	16.2
Korea, Rep.	8.0	7.1	-0.8	10.8	12.0	10.2	7.5	12.8	-5.4	5.6
Malaysia	4.9	13.7	6.6	10.2	13.0	10.1	1.6	11.7	-1.4	6.3
New Zealand	6.4	8.9	2.5	-0.4	3.4	13.3	4.9	4.3	-1.1	4.1
Taiwan	3.5	3.2	-0.2	9.7	7.0	20.9	2.9	2.5	-5.3	1.4
Philippines	0.8	5.8	2.4	11.2	11.2	2.0	-5.2	9.5	-10.1	2.3
Singapore	7.4	6.9	-3.9	11.3	9.9	16.2	4.3	14.3	-3.7	11.1
Thailand	8.5	9.9	2.8	12.2	9.6	13.2	6.4	19.9	0.2	12.8
Vietnam	14.8	12.5	10.7	25.6	31.6	3.1	22.2	26.2	15.3	25.2

Imports of Asia (15)

	total	agr	fish	chem	metal	oil	mach	trans	tex	other
Asia (15)	8.6	8.0	1.5	9.2	14.6	12.0	7.1	10.1	1.6	8.0
Australia	8.3	10.2	6.6	7.3	11.7	14.2	6.5	6.7	5.5	8.9
China	16.8	19.1	10.7	14.3	23.5	20.7	15.9	23.4	3.9	13.3
Hong Kong	5.1	4.9	2.2	1.6	0.7	11.5	8.2	1.8	-2.3	4.2
Indonesia	12.5	10.8	10.4	8.6	13.4	13.7	16.4	11.9	8.0	10.7
India	18.1	15.9	17.5	18.9	20.9	16.2	19.6	23.2	9.9	18.3
Japan	3.8	1.6	-2.6	6.2	9.4	6.9	2.2	1.3	0.9	1.3
Cambodia	10.5	7.2	1.1	9.9	8.9	3.9	12.2	14.9	11.8	11.4
Korea, Rep.	7.8	7.0	6.3	9.1	13.1	9.3	4.8	14.0	4.1	7.1
Malaysia	4.9	11.5	7.6	6.9	10.0	12.1	1.9	11.2	0.8	7.5
New Zealand	5.7	9.1	4.6	4.9	3.8	9.9	4.3	3.8	4.4	5.6
Taiwan	3.6	4.3	2.8	5.8	8.3	11.7	0.3	0.3	-1.3	4.2
Philippines	2.4	7.5	1.5	3.5	4.6	6.6	-0.3	9.0	-6.1	2.3
Singapore	6.3	6.4	3.3	7.0	6.0	14.9	3.2	7.0	-0.8	7.5
Thailand	8.9	10.4	7.6	8.4	13.5	12.4	6.4	9.5	3.5	11.3
Vietnam	15.8	21.2	27.1	15.8	22.4	10.9	17.8	7.1	12.0	20.4

Source: Own calculations based on data from WITS/COMTRADE.

Table 11: Shares of Asia's trade in goods 2010, and annual growth rates 2000-2010. For 16/15 Asian countries.
Note: Figures in percentages. Growth rates based on data in constant USD.

Annual trade growth 2000-2010						
	Exports			Imports		
	World	Asia	Other	World	Asia	Other
Asia (15)	8.5	9.4	7.6	8.6	8.8	8.4
Australia	10.0	12.4	4.4	8.3	10.3	6.2
China	17.6	15.2	19.7	16.8	15.5	18.5
Hong Kong, China	-6.7	-3.8	-10.0	5.1	5.4	4.2
Indonesia	7.3	8.4	5.3	12.5	14.5	8.8
India	15.3	18.4	14.3	18.1	23.1	16.4
Japan	2.5	5.7	-0.6	3.8	5.1	2.6
Cambodia	12.4	16.8	10.1	10.5	10.7	9.1
Korea, Rep.	8.0	9.6	6.4	7.8	8.8	6.8
Macao	-19.6	-6.1	-21.9	6.9	3.7	16.3
Malaysia	4.9	6.4	2.4	4.9	5.4	4.0
New Zealand	6.4	7.3	5.1	5.7	7.5	3.2
Taiwan	3.5	6.4	-1.1	3.6	3.8	3.4
Philippines	0.8	3.9	-3.4	2.4	4.0	-0.4
Singapore	7.4	9.3	3.6	6.3	6.2	6.4
Thailand	8.5	10.5	6.0	8.9	9.8	7.4
Vietnam	14.8	11.6	19.3	15.8	15.2	18.2
Shares (%) of Asia's trade 2010						
	Exports			Imports		
	World	Asia	Other	World	Asia	Other
Asia19 --- Asia19	100.0	100.0	100.0	100.0	100.0	100.0
Australia	4.5	6.5	2.2	4.1	4.1	4.1
China	34.4	26.1	44.2	27.9	25.8	30.7
Hong Kong, China	0.3	0.4	0.3	9.6	13.6	4.1
Indonesia	3.4	4.4	2.3	2.9	3.7	1.9
India	4.8	2.5	7.5	7.6	4.3	12.0
Japan	16.8	18.0	15.4	15.0	13.6	16.9
Cambodia	0.1	0.1	0.2	0.1	0.2	0.0
Korea, Rep.	10.2	10.4	9.9	9.2	8.4	10.3
Macao	0.0	0.0	0.0	0.1	0.1	0.1
Myanmar	0.2	0.3	0.0	0.1	0.1	0.0
Malaysia	4.3	5.4	3.0	3.6	4.3	2.6
New Zealand	0.6	0.7	0.5	0.7	0.7	0.6
Taiwan	5.7	7.3	3.8	5.4	5.5	5.3
Philippines	1.1	1.4	0.8	1.3	1.5	0.9
Singapore	7.7	10.3	4.6	6.7	7.1	6.3
Thailand	4.3	4.9	3.5	3.9	4.5	3.2
Vietnam	1.6	1.4	1.7	1.8	2.5	0.9

Source: Own calculations based on data from WITS/COMTRADE.

Appendix Table 12: Income inequality and poverty in Asian countries (latest available year)										
Country	Gini	Income share by quintile						Extreme poverty		Poverty	
		1st	2nd	3rd	4th	5th		Head-count	Poverty gap	Head-count	Poverty gap
Australia	35.19	5.90	12.01	17.20	23.57	41.32					
Brunei Darussalam											
China	42.06	4.67	9.74	15.31	23.19	47.09		11.80	2.84	27.21	9.08
Indonesia	38.14	7.27	10.71	14.85	21.18	45.98		16.20	2.68	43.33	13.04
India	33.90	8.54	12.14	15.69	20.82	42.81		32.68	7.49	68.76	24.47
Japan	24.85	10.58	14.21	17.58	21.98	35.65					
Cambodia	36.03	7.93	11.39	15.28	20.95	44.45		18.60	3.51	49.54	15.06
Korea, Rep.	31.59	7.91	13.56	17.95	23.13	37.45					
Lao PDR	36.74	7.64	11.33	15.29	20.90	44.84		33.88	8.95	66.00	24.83
Myanmar											
Malaysia	46.21	4.54	8.65	13.72	21.64	51.45		0.00	0.00	2.27	0.16
New Zealand	36.17	6.45	11.37	15.81	22.61	43.76					
Philippines	42.98	5.98	9.42	13.87	21.04	49.69		18.42	3.72	41.53	13.78
Singapore	42.48	5.04	9.42	14.55	22.02	48.97					
Thailand	39.37	6.76	10.50	14.62	21.45	46.67		0.38	0.04	4.05	0.68
Vietnam	35.57	7.42	11.52	15.81	21.84	43.41		16.85	3.75	43.36	13.53

Data source: World Development Indicators.

Appendix Table 13: Sector and country shares of trade in goods 1996 and 2012, in Norway's trade with Asia-19

Based on figures in 2012 constant $ (using the US GDP deflator)

Sector share of trade

	Exports to Asia-19			Imports from Asia-19		
	1996	2004	2012	1996	2004	2012
Total	100	100	100	100	100	100
Seafood	18.7	17.2	10.6	0.5	0.4	0.7
Agriculture	1.7	0.8	0.4	2.1	2.1	2.1
Chemicals	5.5	7.8	8.2	3.6	3.5	5.1
Oil&gas	7.6	11.6	26.1	0.0	0.0	0.1
Metals/min.	9.3	13.1	8.8	3.4	1.9	2.5
Textiles	0.7	0.6	0.3	17.7	17.8	16.4
Machinery	29.0	30.1	32.8	30.1	39.8	40.0
Transp. Eq.	3.5	13.0	2.2	26.1	17.4	14.8
Other	6.6	5.7	5.8	15.9	16.7	18.1

Country shares of trade

	Exports to Asia-19			Imports from Asia-19		
	1996	2004	2012	1996	2004	2012
Asia-19	*100*	*100*	*100*	*100*	*100*	*100*
ASEAN	*22.3*	*14.2*	*18.0*	*23.0*	*12.0*	*13.5*
China/Japan/Kor	*52.2*	*66.5*	*69.6*	*58.4*	*71.7*	*75.9*
Aus/NZ/India	*7.8*	*7.0*	*6.5*	*6.8*	*4.4*	*5.0*
Australia	4.5	3.7	3.3	3.6	1.2	0.8
Brunei	0.0	0.0	0.1	0.0	0.0	0.0
China	7.9	21.0	19.9	18.2	38.3	54.5
Hong Kong	5.1	8.3	2.2	4.6	3.6	1.0
Indonesia	2.0	0.5	1.1	1.7	1.6	1.2
India	2.4	2.9	3.0	2.9	2.8	3.9
Japan	35.2	26.6	12.6	34.9	26.2	13.8
Cambodia	0.1	0.0	0.0	0.0	0.1	0.2
Korea, Rep.	9.1	18.9	37.1	5.3	7.2	7.6
Lao PDR	0.4	0.0	0.0	0.1	0.0	0.0
Macao	0.1	0.0	0.0	0.2	0.3	0.0
Myanmar	0.0	0.0	0.0	0.0	0.0	0.0
Malaysia	2.0	1.1	1.9	2.5	3.0	2.3
New Zealand	0.9	0.4	0.2	0.3	0.4	0.3
Taiwan	12.4	3.8	3.8	6.9	7.9	4.3
Philippines	3.8	0.4	1.0	0.5	0.6	0.2
Singapore	7.6	10.7	10.1	14.9	2.3	3.1
Thailand	6.2	1.2	2.5	2.7	3.0	3.9
Vietnam	0.2	0.3	1.3	0.6	1.4	2.6

Data source: Own calculations based on data from WITS/COMTRADE.

Appenbdix Table 14: Growth rates for Norway's trade in goods with Asia-19 by country, and country shares 1996 and 2012.

	Share of total trade with Asia-19				Growth rates			
	Exports		Imports		1996-2012		2005-2012	
	1996	2012	1996	2012	Exports	Imports	Exports	Imports
Asia-19	100	100	100	100	7.8	6.6	13.8	8.0
Australia	4.5	3.3	3.6	0.8	5.8	-2.6	9.8	3.9
Brunei	0.0	0.1	0.0	0.0	12.8	20.5	27.6	-11.9
China	7.9	19.9	18.2	54.5	14.3	14.1	14.6	12.2
Hong Kong	5.1	2.2	4.6	1.0	2.3	-3.0	0.4	-8.8
Indonesia	2.0	1.1	1.7	1.2	3.9	4.2	18.9	2.5
India	2.4	3.0	2.9	3.9	9.3	8.6	8.1	12.9
Japan	35.2	12.6	34.9	13.8	1.1	0.6	3.9	0.1
Cambodia	0.1	0.0	0.0	0.2	-31.1	22.4	-47.4	16.5
Korea, Rep.	9.1	37.1	5.3	7.6	17.7	9.0	25.7	8.0
Lao PDR	0.4	0.0	0.1	0.0	-27.1	-10.6	-28.3	-9.6
Macao	0.1	0.0	0.2	0.0	-9.9	-11.0	-9.5	-26.4
Myanmar	0.0	0.0	0.0	0.0	7.1	-8.3	51.8	-22.7
Malaysia	2.0	1.9	2.5	2.3	7.4	6.1	27.0	4.2
New Zealand	0.9	0.2	0.3	0.3	-1.7	7.0	0.0	9.0
Taiwan	12.4	3.8	6.9	4.3	0.1	3.4	18.7	0.6
Philippines	3.8	1.0	0.5	0.2	-1.0	1.9	29.4	-7.2
Singapore	7.6	10.1	14.9	3.1	9.7	-3.3	4.5	11.1
Thailand	6.2	2.5	2.7	3.9	1.9	9.1	29.5	13.9
Vietnam	0.2	1.3	0.6	2.6	22.4	16.6	37.7	18.1

Source: Own calculations based on data from WITS/COMTRADE.

Appendix Table 15: Sector shares in Norway's trade in goods with Asia-19, 1996-2012																					
		Exports										Imports									
Country	Year	Total	fish	agr	chem	oil	metal	tex	mach	tran	other	Total	fish	agr	chem	oil	metal	tex	mach	tran	other
Asia-19	1996	100	18.7	1.7	5.5	7.6	9.3	0.7	29.0	3.5	6.6	100	0.5	2.1	3.6	0.0	3.4	17.7	30.1	26.1	15.9
	2004	100	17.2	0.8	7.8	11.6	13.1	0.6	30.1	13.0	5.7	100	0.4	2.1	3.5	0.0	1.9	17.8	39.8	17.4	16.7
	2012	100	10.6	0.4	8.2	26.1	8.8	0.3	32.8	2.2	5.8	100	0.7	2.1	5.1	0.1	2.5	16.4	40.0	14.8	18.1
Australia	1996	100	5.5	6.8	3.8	0.0	5.5	0.2	19.9	3.3	11.3	100	0.0	10.3	24.4	0.0	60.2	0.3	3.5	0.5	0.6
	2004	100	3.7	9.6	2.5	0.0	6.2	0.7	60.6	1.4	15.2	100	0.1	33.2	4.0	0.0	38.9	1.0	15.9	2.6	4.2
	2012	100	6.4	4.8	1.7	0.0	4.0	0.3	26.5	38.4	10.7	100	0.4	19.6	22.0	0.0	16.7	1.8	30.7	4.0	4.7
Brunei	1996	100	0.0	0.0	3.2	0.0	3.2	0.0	72.1	4.7	7.9	100	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
	2004	100	0.0	0.0	32.7	0.0	0.2	0.0	38.3	6.6	22.2										
	2012	100	1.5	0.0	0.3	0.0	0.0	0.0	87.7	0.5	10.0	100	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0
China	1996	100	3.6	0.0	2.5	0.0	1.1	0.1	48.4	0.6	2.9	100	0.3	1.5	3.7	0.0	3.3	52.5	13.8	5.2	18.8
	2004	100	16.3	0.0	6.4	22.4	11.8	0.6	24.9	13.9	3.6	100	0.3	1.0	4.2	0.0	2.9	31.3	37.7	1.9	20.3
	2012	100	15.7	0.1	14.5	2.8	21.4	0.4	32.6	1.4	3.6	100	0.4	1.7	4.3	0.0	2.4	22.4	45.5	3.9	19.1
Hong Kong	1996	100	15.3	1.3	2.6	0.0	21.1	7.0	36.5	1.3	10.1	100	0.0	0.3	1.0	0.4	0.0	53.1	29.1	0.3	14.0
	2004	100	8.4	0.1	1.2	0.0	28.9	2.7	16.3	39.9	2.3	100	0.4	0.3	2.0	0.0	0.2	23.5	30.4	24.0	17.4
	2012	100	38.3	0.9	8.8	0.0	13.0	2.0	31.4	0.9	4.5	100	0.1	0.3	5.4	0.5	0.6	25.5	32.2	3.6	30.2
Indonesia	1996	100	0.4	4.3	2.6	0.0	6.7	0.4	41.6	0.1	8.2	100	0.1	9.4	2.3	0.0	0.8	38.8	10.0	0.2	38.1
	2004	100	13.2	2.3	11.3	0.0	8.2	0.3	46.8	0.0	17.9	100	1.6	4.8	1.2	0.0	0.0	27.3	17.3	3.0	44.5
	2012	100	11.4	0.1	9.9	0.0	1.9	2.7	38.6	10.3	12.1	100	0.5	3.5	4.9	0.0	0.1	40.4	19.6	3.8	27.1
India	1996	100	0.1	0.9	5.6	0.0	6.1	1.4	61.2	4.3	9.4	100	1.0	12.2	6.0	0.0	3.8	64.9	1.1	0.1	11.0
	2004	100	0.4	0.2	3.4	0.0	22.7	1.6	38.4	30.7	2.6	100	0.6	10.7	2.5	0.0	5.8	54.1	5.9	0.6	16.8
	2012	100	0.2	0.0	4.4	9.5	24.5	0.4	41.3	1.3	2.8	100	0.7	6.3	6.4	0.0	2.8	37.7	9.6	21.8	14.6
Japan	1996	100	42.9	2.8	10.8	0.0	14.0	0.2	13.5	3.4	7.8	100	0.1	0.1	3.3	0.0	1.5	0.4	40.0	33.9	20.6
	2004	100	38.6	1.4	18.6	1.0	16.1	0.1	14.6	2.6	7.0	100	0.0	0.1	3.7	0.0	0.1	0.3	37.5	45.1	13.1
	2012	100	24.7	1.4	12.2	26.6	8.5	0.1	12.4	1.0	11.2	100	0.1	0.2	5.3	0.0	0.2	0.3	32.3	40.1	21.5
Cambodia	1996	100	78.1	0.0	0.0	0.0	0.0	0.0	9.9	0.0	12.1	100	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0
	2004	100	90.1	0.0	0.0	0.0	0.0	1.4	0.1	0.0	8.5	100	0.0	0.0	0.0	0.0	0.0	99.9	0.0	0.0	0.1
	2012	100	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100	0.0	0.1	0.3	0.0	0.0	98.0	0.1	1.3	0.1
Korea, Rep.	1996	100	4.9	0.3	2.3	0.0	7.0	1.1	59.0	16.8	5.0	100	2.6	0.4	3.2	0.0	0.3	13.9	51.0	13.5	13.8
	2004	100	4.1	0.0	1.0	34.6	4.9	0.4	48.8	1.1	5.0	100	0.7	0.6	3.2	0.0	0.1	6.1	35.9	44.0	9.2
	2012	100	1.8	0.1	1.4	52.6	1.7	0.1	36.4	0.3	4.1	100	0.4	0.5	1.0	0.0	0.2	2.0	36.4	55.0	4.4

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Continued Appendix Table 15: Sector shares in Norway's trade in goods with Asia-19...																					
	Year	Exports										Imports									
		Total	fish	agr	chem	oil	metal	tex	mach	tran	other	Total	fish	agr	chem	oil	metal	tex	mach	tran	other
Lao PDR	1996	100	0.2	0.0	0.2	0.0	0.0	0.0	90.2	4.5	0.1	100	0.0	0.0	0.0	0.0	0.0	97.6	1.2	0.0	1.1
	2004	100	0.1	0.0	1.1	0.0	0.0	5.0	93.7	0.1	0.0	100	0.0	0.7	0.0	0.0	0.0	99.3	0.0	0.0	0.0
	2012	100	0.0	0.0	0.0	0.0	0.0	3.8	96.2	0.0	0.0	100	0.0	10.7	0.0	0.0	0.0	80.4	9.0	0.0	0.0
Macao	1996	100	37.2	0.0	0.9	0.0	0.0	27.6	2.4	3.3	27.8	100	0.0	0.0	0.1	0.0	0.0	97.0	1.4	0.0	1.4
	2004	100	71.9	1.2	0.4	0.0	0.0	6.8	7.1	1.9	10.8	100	0.0	0.0	0.0	0.0	0.0	99.1	0.8	0.0	0.1
	2012	100	61.1	9.3	1.0	0.0	0.0	0.0	28.6	0.0	0.0	100	0.0	0.0	0.2	0.0	0.0	19.6	56.9	0.0	23.1
Myanmar	1996	100	0.0	0.0	2.9	0.0	0.0	0.0	28.8	0.0	68.4	100	0.0	0.0	0.0	0.0	0.0	0.9	0.0	1.2	97.9
	2004	100	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	100	0.0	0.0	0.0	0.0	0.0	29.5	0.0	0.0	70.5
	2012	100	0.0	0.0	9.9	0.0	0.0	0.0	84.5	0.0	5.2	100	0.8	2.1	7.5	0.0	0.0	37.4	34.4	0.0	17.8
Malaysia	1996	100	10.5	1.9	3.5	0.0	16.2	1.5	18.5	0.7	10.4	100	0.2	6.1	1.6	0.0	0.1	10.6	52.9	2.1	26.4
	2004	100	6.9	0.9	3.6	0.0	7.3	0.1	46.7	26.0	8.4	100	0.1	3.4	3.5	0.0	0.0	2.3	68.6	0.6	21.1
	2012	100	5.8	0.1	5.0	0.0	0.8	0.4	63.9	1.9	10.6	100	0.0	0.6	7.2	0.0	0.6	1.6	63.8	11.2	14.8
New Zealand	1996	100	0.3	1.3	2.4	0.0	2.0	3.5	67.7	4.0	5.1	100	0.9	68.3	2.6	0.0	0.4	9.9	13.7	0.8	3.3
	2004	100	1.8	3.8	5.5	0.0	1.8	5.9	56.3	13.7	11.2	100	5.4	61.7	1.5	0.0	0.2	8.8	20.0	0.3	1.9
	2012	100	18.6	0.4	1.9	0.0	2.1	3.0	31.0	12.2	12.4	100	1.3	50.3	2.1	0.0	12.1	3.3	24.2	0.7	5.5
Taiwan	1996	100	7.8	0.4	0.7	60.7	6.1	0.2	4.9	0.1	3.7	100	1.6	0.2	2.3	0.0	0.3	4.2	58.4	13.2	19.4
	2004	100	16.6	0.3	11.4	2.3	42.5	0.2	14.9	1.0	10.8	100	0.0	0.1	2.5	0.0	0.3	3.4	69.8	7.5	16.2
	2012	100	18.6	0.2	3.8	64.1	3.9	0.0	5.8	0.1	2.3	100	0.8	0.3	2.8	0.0	2.8	2.9	58.3	12.4	19.5
Philippines	1996	100	0.7	0.6	0.7	0.0	0.2	0.0	90.7	1.1	1.5	100	0.1	17.7	0.3	0.0	0.0	26.2	33.2	1.0	20.7
	2004	100	16.2	5.2	3.6	0.3	0.5	0.4	60.6	1.4	11.7	100	2.3	6.9	0.6	0.0	0.0	8.0	65.1	6.3	10.5
	2012	100	9.1	0.7	70.3	0.0	0.0	0.1	5.1	0.8	0.8	100	1.2	13.2	4.2	0.0	0.6	18.5	51.1	0.4	10.7
Singapore	1996	100	5.8	0.2	6.4	0.0	9.6	0.5	44.4	2.2	9.4	100	0.1	0.2	1.6	0.0	0.1	0.5	18.7	77.4	1.2
	2004	100	3.3	0.1	3.8	0.0	2.7	0.2	44.7	41.4	3.7	100	0.3	0.4	2.9	0.0	0.0	0.7	87.7	0.9	5.5
	2012	100	3.6	0.1	17.5	0.0	14.5	0.2	54.3	1.4	7.2	100	0.2	0.6	31.0	2.5	22.5	0.8	25.6	13.8	2.8
Thailand	1996	100	1.7	1.5	1.2	0.0	2.4	0.1	17.6	1.1	2.8	100	4.2	13.2	2.5	0.0	0.6	25.2	33.6	2.6	17.8
	2004	100	38.5	1.3	5.8	0.0	6.8	0.6	27.9	3.0	16.1	100	4.4	13.1	3.6	0.0	0.5	17.5	40.9	0.7	19.0
	2012	100	22.2	0.7	1.6	0.0	1.6	0.2	23.8	0.3	16.5	100	6.0	9.3	1.8	0.0	0.2	8.3	28.7	6.8	38.9
Vietnam	1996	100	4.3	0.2	1.9	0.0	2.2	4.6	33.9	12.4	16.9	100	4.3	1.6	0.1	0.0	0.0	76.9	0.0	0.0	17.0
	2004	100	39.6	0.0	6.7	0.0	6.6	2.3	35.8	0.2	8.9	100	1.7	2.0	0.7	0.0	0.2	71.3	1.3	6.0	16.8
	2012	100	54.4	0.1	2.0	0.0	1.3	0.9	24.7	0.6	3.1	100	4.8	3.4	1.6	0.0	0.1	37.8	24.2	16.5	11.7
Source: Calculated from WITS/COMTRADE data.																					

Appendix Table 16: Norway's share in China's exports and imports of goods 2007-2012 (% of total)
See Appendix Table 7 for classification

Imports										
	tot	agr	chem	fish	mach	other	met	oil	tex	tran
2007	0.19	0.01	0.28	3.89	0.18	0.12	0.20	0.09	0.02	0.03
2008	0.21	0.00	0.38	3.69	0.28	0.21	0.13	0.00	0.03	0.05
2009	0.33	0.00	0.42	5.62	0.36	0.23	0.43	0.11	0.03	0.08
2010	0.25	0.00	0.39	6.63	0.25	0.15	0.31	0.07	0.02	0.10
2011	0.22	0.00	0.49	5.53	0.21	0.12	0.24	0.08	0.02	0.14
2012	0.18	0.00	0.41	5.44	0.18	0.13	0.23	0.02	0.01	0.09
Exports										
	tot	agr	chem	fish	mach	other	met	oil	tex	tran
2007	0.18	0.09	0.20	0.13	0.09	0.26	0.06	0.02	0.39	0.27
2008	0.18	0.10	0.18	0.09	0.09	0.28	0.06	0.04	0.33	0.38
2009	0.22	0.11	0.20	0.09	0.08	0.25	0.06	0.03	0.28	1.54
2010	0.18	0.13	0.19	0.12	0.09	0.23	0.06	0.03	0.27	0.69
2011	0.20	0.12	0.14	0.10	0.08	0.21	0.06	0.11	0.26	1.19
2012	0.15	0.15	0.11	0.09	0.07	0.21	0.08	0.08	0.21	0.57

Source: Calculated from WITS/COMTRADE data.

Appendix Table 17. Norway`s total outward FDI stock, by region and in Asian countries (million NOK).															
Region		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
World	Total	180266	239691	301076	337629	327916	381316	488827	629089	754070	789184	948421	977141	1075618	1169466
	Yearly growth		*33,0 %*	*25,6 %*	*12,1 %*	*-2,9 %*	*16,3 %*	*28,2 %*	*28,7 %*	*19,9 %*	*4,7 %*	*20,2 %*	*3,0 %*	*10,1 %*	*8,7 %*
OECD countries	Total	164265	197192	238666	257987	261673	294136	375626	496760	559025	558535	669735	697858	748543	874209
	% of world total	91,1 %	82,3 %	79,3 %	76,4 %	79,8 %	77,1 %	76,8 %	79,0 %	74,1 %	70,8 %	70,6 %	71,4 %	69,6 %	74,8 %
EU countries	Total	126544	156557	195394	204319	206114	232837	306378	355450	428067	456580	541493	574862	613324	763429
	% of world total	70,2 %	65,3 %	64,9 %	60,5 %	62,9 %	61,1 %	62,7 %	56,5 %	56,8 %	57,9 %	57,1 %	58,8 %	57,0 %	65,3 %
Netherlands	Total	14988	15992	18137	19100	24830	24089	38836	53489	63838	103770	115375	78644	92286	175335
	% of world total	8,3 %	6,7 %	6,0 %	5,7 %	7,6 %	6,3 %	7,9 %	8,5 %	8,5 %	13,1 %	12,2 %	8,0 %	8,6 %	15,0 %
Sweden	Total	33486	54021	56046	65046	59948	66086	91238	89446	111698	117781	129495	125430	133761	138007
	% of world total	18,6 %	22,5 %	18,6 %	19,3 %	18,3 %	17,3 %	18,7 %	14,2 %	14,8 %	14,9 %	13,7 %	12,8 %	12,4 %	11,8 %
Australia	Total	802	735	2082	-2287	-2705	-1453	2264	2625	2386	3658	5998	-3046	4398	7357
	% of world total	0,44 %	0,31 %	0,69 %	-0,68 %	-0,82 %	-0,38 %	0,46 %	0,42 %	0,32 %	0,46 %	0,63 %	-0,31 %	0,41 %	0,63 %
Brunei	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Philippines	Total	-15	-22	10	-4	7	8	199	57	53	79	327	979	73	34
	% of world total	-0,01 %	-0,01 %	0,003 %	-0,001 %	0,002 %	0,002 %	0,04 %	0,01 %	0,01 %	0,01 %	0,03 %	0,10 %	0,01 %	0,003 %
Hong Kong	Total	325	418	370	551	432	306	1024	656	641	444	661	926	539	556
	% of world total	0,18 %	0,17 %	0,12 %	0,16 %	0,13 %	0,08 %	0,21 %	0,10 %	0,09 %	0,06 %	0,07 %	0,09 %	0,05 %	0,05 %
India	Total	23	52	45	63	58	51	192	114	289	327	6161	4942	497	1186
	% of world total	0,01 %	0,02 %	0,01 %	0,02 %	0,02 %	0,01 %	0,04 %	0,02 %	0,04 %	0,04 %	0,65 %	0,51 %	0,05 %	0,10 %
Indonesia	Total	91	135	192	199	218	202	146	326	344	161	454	-443	496	671
	% of world total	0,05 %	0,06 %	0,06 %	0,06 %	0,07 %	0,05 %	0,03 %	0,05 %	0,05 %	0,02 %	0,05 %	-0,05 %	0,05 %	0,06 %
Japan	Total	146	212	180	167	321	370	951	388	498	362	466	401	510	616
	% of world total	0,08 %	0,09 %	0,06 %	0,05 %	0,10 %	0,10 %	0,19 %	0,06 %	0,07 %	0,05 %	0,05 %	0,04 %	0,05 %	0,05 %
Cambodia	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
China	Total	322	340	322	600	729	514	878	613	1965	870	1501	1890	2082	3309
	% of world total	0,18 %	0,14 %	0,11 %	0,18 %	0,22 %	0,13 %	0,18 %	0,10 %	0,26 %	0,11 %	0,16 %	0,19 %	0,19 %	0,28 %
Lao PDR	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Malaysia	Total	142	182	220	196	115	124	157	423	1065	1110	1737	1582	1674	1348
	% of world total	0,08 %	0,08 %	0,07 %	0,06 %	0,04 %	0,03 %	0,03 %	0,07 %	0,14 %	0,14 %	0,18 %	0,16 %	0,16 %	0,12 %
Myanmar	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %

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Continued Appendix Table 17. Norway`s total outward FDI stock...

Region		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
New Zealand	Total	192	181	2472	1557	1528	62	1523	1660	2724	1585	1427	1500	1426	1475
	% of world total	0,11 %	0,08 %	0,82 %	0,46 %	0,47 %	0,02 %	0,31 %	0,26 %	0,36 %	0,20 %	0,15 %	0,15 %	0,13 %	0,13 %
Singapore	Total	1397	2035	11202	20110	8334	14237	24000	32374	60879	69213	102022	99596	107338	106955
	% of world total	0,77 %	0,85 %	3,72 %	5,96 %	2,54 %	3,73 %	4,91 %	5,15 %	8,07 %	8,77 %	10,76 %	10,19 %	9,98 %	9,15 %
Korea	Total	88	144	143	188	1073	1007	1604	1996	3128	2273	1467	1453	1630	1560
	% of world total	0,05 %	0,06 %	0,05 %	0,06 %	0,33 %	0,26 %	0,33 %	0,32 %	0,41 %	0,29 %	0,15 %	0,15 %	0,15 %	0,13 %
Taiwan	Total	0	0	15	5	2	7	8	0	24	9	7	0	9	17
	% of world total	0,000 %	0,000 %	0,005 %	0,001 %	0,001 %	0,002 %	0,002 %	0,00 %	0,003 %	0,001 %	0,001 %	0,00 %	0,001 %	0,001 %
Thailand	Total	1349	1386	1494	1585	1899	2656	3326	4011	5240	6319	7130	6993	7350	8353
	% of world total	0,75 %	0,58 %	0,50 %	0,47 %	0,58 %	0,70 %	0,68 %	0,64 %	0,69 %	0,80 %	0,75 %	0,72 %	0,68 %	0,71 %
Vietnam	Total	0	230	65	325	526	481	594	500	487	358	610	718	556	612
	% of world total	0,00 %	0,10 %	0,02 %	0,10 %	0,16 %	0,13 %	0,12 %	0,08 %	0,06 %	0,05 %	0,06 %	0,07 %	0,05 %	0,05 %
ASEAN	Total	2964	3946	13183	22411	11099	17708	28422	37691	68068	77240	112280	109425	117487	117973
	% of world total	1,64 %	1,65 %	4,38 %	6,64 %	3,38 %	4,64 %	5,81 %	5,99 %	9,03 %	9,79 %	11,84 %	11,20 %	10,92 %	10,09 %
"+3"	Total	556	696	645	955	2123	1891	3433	2997	5591	3505	3434	3744	4222	5485
	% of world total	0,31 %	0,29 %	0,21 %	0,28 %	0,65 %	0,50 %	0,70 %	0,48 %	0,74 %	0,44 %	0,36 %	0,38 %	0,39 %	0,47 %
"16-countries"	Total	4537	5610	18427	22699	12103	18259	35834	45087	79058	86315	129300	116565	128030	133476
	% of world total	2,52 %	2,34 %	6,12 %	6,72 %	3,69 %	4,79 %	7,33 %	7,17 %	10,48 %	10,94 %	13,63 %	11,93 %	11,90 %	11,41 %

Source: Statistics Norway (SSB).

Appendix Table 18. Norway`s total inward FDI stock, by region and from Asian countries (million NOK).

Region		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
World	Total	194700	236600	267800	294400	298000	327100	479547	516700	599008	679466	799356	871819	1005179	1068190
	Yearly growth		21,5 %	13,2 %	9,9 %	1,2 %	9,8 %	46,6 %	7,7 %	15,9 %	13,4 %	17,6 %	9,1 %	15,3 %	6,3 %
OECD-countries	Total	189000	225700	249000	269200	272800	293700	425754	466749	525542	560656	617851	661257	779464	825982
	% of world total	97,1 %	95,4 %	93,0 %	91,4 %	91,5 %	89,8 %	88,8 %	90,3 %	87,7 %	82,5 %	77,3 %	75,8 %	77,5 %	77,3 %
EU-countries	Total	132700	171900	206500	225300	220400	246600	307978	331548	396793	411283	466077	519726	641801	671625
	% of world total	68,2 %	72,7 %	77,1 %	76,5 %	74,0 %	75,4 %	64,2 %	64,2 %	66,2 %	60,5 %	58,3 %	59,6 %	63,8 %	62,9 %
Netherlands	Total	49000	52700	53500	52100	47500	55000	37773	39548	54862	52349	45004	70011	93464	119117
	% of world total	25,2 %	22,3 %	20,0 %	17,7 %	15,9 %	16,8 %	7,9 %	7,7 %	9,2 %	7,7 %	5,6 %	8,0 %	9,3 %	11,2 %
Sweden	Total	25700	40100	43700	55100	52100	74000	104408	113233	114038	115421	126150	136642	152490	173302
	% of world total	13,2 %	16,9 %	16,3 %	18,7 %	17,5 %	22,6 %	21,8 %	21,9 %	19,0 %	17,0 %	15,8 %	15,7 %	15,2 %	16,2 %
Australia	Total	252	627	348	329	263	256	181	37	194	4624	3664	1975	2316	5338
	% of world total	0,13 %	0,27 %	0,13 %	0,11 %	0,09 %	0,08 %	0,04 %	0,01 %	0,03 %	0,68 %	0,46 %	0,23 %	0,23 %	0,50 %
Brunei	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Philippines	Total	9	-39	-102	32	36	6	77	0	0	0	0	2	1	-2
	% of world total	0,005 %	-0,02 %	-0,04 %	0,01 %	0,01 %	0,002 %	0,02 %	0,00 %	0,00 %	0,00 %	0,00 %	0,0002 %	0,0001 %	-0,0002 %
Hong Kong	Total	25	31	89	127	69	-5	38	2	4	46	128	95	234	586
	% of world total	0,01 %	0,01 %	0,03 %	0,04 %	0,02 %	0,00 %	0,01 %	0,00 %	0,00 %	0,01 %	0,02 %	0,01 %	0,02 %	0,05 %
India	Total	3	-3	-2	-20	-27	4	3	2	11	10	80	79	121	45
	% of world total	0,002 %	-0,001 %	-0,001 %	-0,01 %	-0,01 %	0,001 %	0,001 %	0,0004 %	0,002 %	0,001 %	0,01 %	0,01 %	0,01 %	0,004 %
Indonesia	Total	-2	0	0	-11	-23	78	0	0	26	0	0	0	28	35
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	-0,01 %	0,02 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Japan	Total	3463	4404	4200	4039	3361	2575	3475	3579	3075	2905	3840	4945	5094	6361
	% of world total	1,78 %	1,86 %	1,57 %	1,37 %	1,13 %	0,79 %	0,72 %	0,69 %	0,51 %	0,43 %	0,48 %	0,57 %	0,51 %	0,60 %
Cambodia	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
China	Total	-33	38	-23	-17	-10	13	913	344	46	2	1690	19210	21536	14654
	% of world total	-0,02 %	0,02 %	-0,01 %	-0,01 %	-0,003 %	0,004 %	0,19 %	0,07 %	0,01 %	0,0003 %	0,21 %	2,20 %	2,14 %	1,37 %
Lao PDR	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %

Continued Appendix Table 18. Norway`s total inward FDI stock...															
Region		1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Malaysia	Total	4	2351	7	11	4	0	0	2	27	15	6	153	92	151
	% of world total	0,002 %	0,99 %	0,003 %	0,004 %	0,001 %	0,00 %	0,00 %	0,0004 %	0,005 %	0,002 %	0,001 %	0,02 %	0,01 %	0,01 %
Myanmar	Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
New Zealand	Total	-4	-1	-1	1	1	0	0	0	0	0	0	50	13	1
	% of world total	-0,002 %	-0,0004 %	-0,0004 %	0,0003 %	0,0003 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,01 %	0,001 %	0,0001 %
Singapore	Total	200	176	329	211	431	-6	9445	1194	2769	4799	9548	10145	12417	20426
	% of world total	0,10 %	0,07 %	0,12 %	0,07 %	0,14 %	-0,002 %	1,97 %	0,23 %	0,46 %	0,71 %	1,19 %	1,16 %	1,24 %	1,91 %
Korea	Total	-82	-58	6	3	4	-51	1	5	5	122	7012	7928	8457	7730
	% of world total	-0,04 %	-0,02 %	0,002 %	0,001 %	0,001 %	-0,02 %	0,0002 %	0,001 %	0,001 %	0,02 %	0,88 %	0,91 %	0,84 %	0,72 %
Taiwan	Total	0	9	-1	8	-12	6	0	0	0	0	1	1	3	0
	% of world total	0,00 %	0,004 %	-0,0004 %	0,003 %	-0,004 %	0,002 %	0,00 %	0,00 %	0,00 %	0,00 %	0,0001 %	0,0001 %	0,0003 %	0,00 %
Thailand	Total	-8	-9	-1	-8	22	-5	0	1	0	0	574	0	2803	2890
	% of world total	-0,004 %	-0,004 %	-0,0004 %	-0,003 %	0,007 %	-0,002 %	0,00 %	0,0002 %	0,00 %	0,00 %	0,07 %	0,00 %	0,28 %	0,27 %
Vietnam	Total	0	0	0	0	0	0	0	0	0	0	0	2	4	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
ASEAN	Total	203	2479	233	235	470	73	9522	1197	2822	4814	10128	10302	15345	23500
	% of world total	0,10 %	1,05 %	0,09 %	0,08 %	0,16 %	0,02 %	1,99 %	0,23 %	0,47 %	0,71 %	1,27 %	1,18 %	1,53 %	2,20 %
China, Japan, Korea	Total	3348	4384	4183	4025	3355	2537	4389	3928	3126	3029	12542	32083	35087	28745
	% of world total	1,72 %	1,85 %	1,56 %	1,37 %	1,13 %	0,78 %	0,92 %	0,76 %	0,52 %	0,45 %	1,57 %	3,68 %	3,49 %	2,69 %
"Asia-16"	Total	3802	7486	4761	4570	4062	2870	14095	5164	6153	12477	26414	44489	52882	57629
	% of world total	1,95 %	3,16 %	1,78 %	1,55 %	1,36 %	0,88 %	2,94 %	1,00 %	1,03 %	1,84 %	3,30 %	5,10 %	5,26 %	5,40 %

Source: Statistics Norway (SSB).

Appendix Table 19. Norway`s return on total outward FDI, by region and for Asian countries (million NOK).									
Region		2004	2005	2006	2007	2008	2009	2010	2011
World	Total	31783	76312	54775	60852	51053	27024	66153	46258
	Yearly growth		140,1 %	-28,2 %	11,1 %	-16,1 %	-47,1 %	144,8 %	-30,1 %
OECD-countries	Total	14004	49317	21343	16822	11471	4922	29658	14924
	Share of world total	44,1 %	64,6 %	39,0 %	27,6 %	22,5 %	18,2 %	44,8 %	32,3 %
EU-countries	Total	12200	41749	25046	18707	6773	3209	25238	10809
	Share of world total	38,4 %	54,7 %	45,7 %	30,7 %	13,3 %	11,9 %	38,2 %	23,4 %
Netherland	Total	2450	14368	4518	9534	3523	-3037	443	5311
	Share of world total	7,7 %	18,8 %	8,2 %	15,7 %	6,9 %	-11,2 %	0,7 %	11,5 %
Sweden	Total	3353	5066	5541	205	3165	2101	11934	3725
	Share of world total	10,5 %	6,6 %	10,1 %	0,3 %	6,2 %	7,8 %	18,0 %	8,1 %
Australia	Total	181	181	-2483	308	440	904	90	366
	Share of world total	0,57 %	0,24 %	-4,53 %	0,51 %	0,86 %	3,35 %	0,14 %	0,79 %
Brunei	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Philippines	Total	1	-8	-13	1	-3	79	-12	13
	Share of world total	0,003 %	-0,01 %	-0,02 %	0,002 %	-0,01 %	0,29 %	-0,02 %	0,03 %
Hong Kong	Total	418	162	155	58	93	96	43	57
	Share of world total	1,32 %	0,21 %	0,28 %	0,10 %	0,18 %	0,36 %	0,07 %	0,12 %
India	Total	6	10	84	42	9	-13	-31	13
	Share of world total	0,02 %	0,01 %	0,15 %	0,07 %	0,02 %	-0,05 %	-0,05 %	0,03 %
Indonesia	Total	-25	-11	13	68	35	-12	0	-4
	Share of world total	-0,08 %	-0,01 %	0,02 %	0,11 %	0,07 %	-0,04 %	0,00 %	-0,01 %
Japan	Total	-10	-43	38	-4	579	7	-2	23
	Share of world total	-0,03 %	-0,06 %	0,07 %	-0,01 %	1,13 %	0,03 %	0,00 %	0,05 %
Cambodia	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
China	Total	39	771	38	53	215	215	174	159
	Share of world total	0,12 %	1,01 %	0,07 %	0,09 %	0,42 %	0,80 %	0,26 %	0,34 %
Lao PDR	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Malaysia	Total	-12	31	266	36	202	-109	-58	33
	Share of world total	-0,04 %	0,04 %	0,49 %	0,06 %	0,40 %	-0,40 %	-0,09 %	0,07 %
Myanmar	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %

Continued next page...

Continued Appendix Table 19. Norway`s return on total outward FDI...

Region		2004	2005	2006	2007	2008	2009	2010	2011
New Zealand	Total	111	124	-196	149	106	85	56	63
	Share of world total	0,35 %	0,16 %	-0,36 %	0,24 %	0,21 %	0,31 %	0,08 %	0,14 %
Singapore	Total	775	1399	4850	10012	5301	4730	4192	5
	Share of world total	2,44 %	1,83 %	8,85 %	16,45 %	10,38 %	17,50 %	6,34 %	0,01 %
Korea	Total	111	471	-1186	1195	351	291	314	228
	Share of world total	0,35 %	0,62 %	-2,17 %	1,96 %	0,69 %	1,08 %	0,47 %	0,49 %
Taiwan	Total	0	0	1	1	-2	0	0	3
	Share of world total	0,00 %	0,00 %	0,002 %	0,002 %	-0,004 %	0,00 %	0,00 %	0,01 %
Thailand	Total	42	40	54	47	1051	-2	149	51
	Share of world total	0,13 %	0,05 %	0,10 %	0,08 %	2,06 %	-0,01 %	0,23 %	0,11 %
Vietnam	Total	-3	-6	0	5	8	-5	243	194
	Share of world total	-0,01 %	-0,01 %	0,00 %	0,01 %	0,02 %	-0,02 %	0,37 %	0,42 %
ASEAN	Total	778	1445	5170	10169	6594	4681	4514	292
	Share of world total	2,45 %	1,89 %	9,44 %	16,71 %	12,92 %	17,32 %	6,82 %	0,63 %
"+3"	Total	140	1199	-1110	1244	1145	513	486	410
	Share of world total	0,44 %	1,57 %	-2,03 %	2,04 %	2,24 %	1,90 %	0,73 %	0,89 %
"16-countries"	Total	1216	2959	1465	11912	8294	6170	5115	1144
	Share of world total	3,83 %	3,88 %	2,67 %	19,58 %	16,25 %	22,83 %	7,73 %	2,47 %

Source: Statistics Norway (SSB).

Appendix Table 20. Returns on total inward FDI in Norway, by investor region and for Asian countries (million NOK).									
Region		2004	2005	2006	2007	2008	2009	2010	2011
World	Total	46153	77776	97985	99730	96549	75093	83714	91973
	Annual growth		68,5 %	26,0 %	1,8 %	-3,2 %	-22,2 %	11,5 %	9,9 %
OECD-countries	Total	45071	74117	93134	94478	91235	72840	77369	89457
	Share of world total	97,7 %	95,3 %	95,0 %	94,7 %	94,5 %	97,0 %	92,4 %	97,3 %
EU-countries	Total	30518	51476	64312	64237	47107	53307	52243	64741
	Share of world total	66,1 %	66,2 %	65,6 %	64,4 %	48,8 %	71,0 %	62,4 %	70,4 %
Netherland	Total	2800	7196	10168	12724	7882	14121	14856	15000
	Share of world total	6,1 %	9,3 %	10,4 %	12,8 %	8,2 %	18,8 %	17,7 %	16,3 %
Sweden	Total	3779	14890	13292	22996	12997	17855	3474	15125
	Share of world total	8,2 %	19,1 %	13,6 %	23,1 %	13,5 %	23,8 %	4,1 %	16,4 %
France	Total	7663	9148	10433	9654	15313	8748	15975	12687
	Share of world total	16,6 %	11,8 %	10,6 %	9,7 %	15,9 %	11,6 %	19,1 %	13,8 %
Australia	Total	18	34	143	193	27	37	49	121
	Share of world total	0,04 %	0,04 %	0,15 %	0,19 %	0,03 %	0,05 %	0,06 %	0,13 %
Brunei	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Philippines	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Hong Kong	Total	1	1	1	1	5	0	3	20
	Share of world total	0,002 %	0,001 %	0,001 %	0,001 %	0,01 %	0,00 %	0,00 %	0,02 %
India	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Indonesia	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Japan	Total	477	532	-83	578	982	-125	260	11
	Share of world total	1,03 %	0,68 %	-0,08 %	0,58 %	1,02 %	-0,17 %	0,31 %	0,01 %
Cambodia	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
China	Total	0	0	0	0	0	364	344	377
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,48 %	0,41 %	0,41 %

Continued Appendix Table 20. Returns on total inward FDI in Norway...									
Lao PDR	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Malaysia	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Myanmar	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
New Zealand	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Singapore	Total	32	250	250	-48	280	30	525	814
	Share of world total	0,07 %	0,32 %	0,26 %	-0,05 %	0,29 %	0,04 %	0,63 %	0,89 %
Korea	Total	0	0	0	0	301	479	422	761
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,31 %	0,64 %	0,50 %	0,83 %
Taiwan	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Thailand	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Vietnam	Total	0	0	0	0	0	0	0	0
	Share of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
ASEAN	Total	32	250	250	-48	280	30	525	814
	Share of world total	0,07 %	0,32 %	0,26 %	-0,05 %	0,29 %	0,04 %	0,63 %	0,89 %
"+3"	Total	477	532	-83	578	1283	718	1026	1149
	Share of world total	1,03 %	0,68 %	-0,08 %	0,58 %	1,33 %	0,96 %	1,23 %	1,25 %
"16-countries"	Total	527	816	310	723	1590	785	1600	2084
	Share of world total	1,14 %	1,05 %	0,32 %	0,72 %	1,65 %	1,05 %	1,91 %	2,27 %

Source: Statistics Norway (SSB).

Appendix Table 21. Norwegian-controlled enterprises abroad; Enterprises, Employed People and Turnover (in million NOK), by region and Asian countries.													
Region		Enterprises				Employed people				Turnover			
		2008	2009	2010	2011	2008	2009	2010	2011	2008	2009	2010	2011
World	Total	2072	2834	3119	3228	201503	223281	239011	250641	774105	748097	879201	1046335
	Yearly growth		*36,8 %*	*10,1 %*	*3,5 %*		*10,8 %*	*7,0 %*	*4,9 %*		*-3,4 %*	*17,5 %*	*19,0 %*
Europe	Total	1440	2044	2230	2312	127800	138282	143626	150295	467896	464323	522256	621948
	% of world total	69,5 %	72,1 %	71,5 %	71,6 %	63,4 %	61,9 %	60,1 %	60,0 %	60,4 %	62,1 %	59,4 %	59,4 %
Nordic countries	Total	649	970	1027	1053	49118	54879	61473	62318	221164	229260	260829	321518
	% of world total	31,3 %	34,2 %	32,9 %	32,6 %	24,4 %	24,6 %	25,7 %	24,9 %	28,6 %	30,6 %	29,7 %	30,7 %
Asia	Total	306	364	432	425	37707	38756	46174	48317	93772	94440	120578	135748
	% of world total	14,8 %	12,8 %	13,9 %	13,2 %	18,7 %	17,4 %	19,3 %	19,3 %	12,1 %	12,6 %	13,7 %	13,0 %
Australia	Total	19	30	32	35	2677	3701	3350	3015	12074	11184	12795	16492
	% of world total	0,92 %	1,06 %	1,03 %	1,08 %	1,33 %	1,66 %	1,40 %	1,20 %	1,56 %	1,49 %	1,46 %	1,58 %
Brunei	Total	0	0	1	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,03 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Philippines	Total	7	7	6	9	0	118	0	211	0	1182	0	703
	% of world total	0,34 %	0,25 %	0,19 %	0,00 %	0,00 %	0,05 %	0,00 %	0,08 %	0,00 %	0,16 %	0,00 %	0,07 %
Hong Kong	Total	15	13	15	15	432	424	536	187	1826	1301	1393	1340
	% of world total	0,72 %	0,46 %	0,48 %	0,46 %	0,21 %	0,19 %	0,22 %	0,07 %	0,24 %	0,17 %	0,16 %	0,13 %
India	Total	20	31	32	36	3200	4751	7232	7522	1277	1758	2755	4720
	% of world total	0,97 %	1,09 %	1,03 %	1,12 %	1,59 %	2,13 %	3,03 %	3,00 %	0,16 %	0,23 %	0,31 %	0,45 %
Indonesia	Total	7	9	9	11	830	848	986	1032	758	899	1138	1571
	% of world total	0,34 %	0,32 %	0,29 %	0,34 %	0,41 %	0,38 %	0,41 %	0,41 %	0,10 %	0,12 %	0,13 %	0,15 %
Japan	Total	11	13	19	21	121	132	266	278	1288	960	1469	1409
	% of world total	0,53 %	0,46 %	0,61 %	0,65 %	0,06 %	0,06 %	0,11 %	0,11 %	0,17 %	0,13 %	0,17 %	0,13 %
Cambodia	Total	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
China	Total	46	57	76	77	5491	5321	7965	9175	7099	6688	9385	12353
	% of world total	2,22 %	2,01 %	2,44 %	2,39 %	2,73 %	2,38 %	3,33 %	3,66 %	0,92 %	0,89 %	1,07 %	1,18 %
Continued next page...													

Continued Appendix Table 21. Norwegian-controlled enterprises abroad; Enterprises, Employed People and Turnover...													
Lao	Total	0	0	0	0	0	0	0	0	0	0	0	0

	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
Malaysia	Total	23	26	33	29	3694	3366	3847	4006	10810	12152	13050	14497
	% of world total	1,11 %	0,92 %	1,06 %	0,90 %	1,83 %	1,51 %	1,61 %	1,60 %	1,40 %	1,62 %	1,48 %	1,39 %
Myanmar	Total	0	0	0	0	0	0	0	0	0	0	0	0
	% of world total	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %	0,00 %
New Zealand	Total	7	9	9	8	0	0	0	39	0	0	0	121
	% of world total	0,34 %	0,32 %	0,29 %	0,25 %	0,00 %	0,00 %	0,00 %	0,02 %	0,00 %	0,00 %	0,00 %	0,01 %
Singapore	Total	76	96	117	119	3209	3404	4655	5296	26360	25519	40522	45155
	% of world total	3,67 %	3,39 %	3,75 %	3,69 %	1,59 %	1,52 %	1,95 %	2,11 %	3,41 %	3,41 %	4,61 %	4,32 %
Korea	Total	12	15	17	17	737	954	979	884	1559	1452	1859	1928
	% of world total	0,58 %	0,53 %	0,55 %	0,53 %	0,37 %	0,43 %	0,41 %	0,35 %	0,20 %	0,19 %	0,21 %	0,18 %
Thailand	Total	22	24	25	25	7159	7080	6740	6807	13644	14485	16832	18107
	% of world total	1,06 %	0,85 %	0,80 %	0,77 %	3,55 %	3,17 %	2,82 %	2,72 %	1,76 %	1,94 %	1,91 %	1,73 %
Vietnam	Total	7	8	9	8	440	543	597	810	266	396	340	548
	% of world total	0,34 %	0,28 %	0,29 %	0,25 %	0,22 %	0,24 %	0,25 %	0,32 %	0,03 %	0,05 %	0,04 %	0,05 %
"16-countries"	Total	257	325	385	395	27558	30218	36617	39075	75135	76675	100145	117604
	Share of world total	12,4 %	11,5 %	12,3 %	12,2 %	13,7 %	13,5 %	15,3 %	15,6 %	9,7 %	10,2 %	11,4 %	11,2 %
ASEAN	Total	142	170	200	201	15332	15359	16825	18162	51838	54633	71882	80581
	Share of world total	6,9 %	6,0 %	6,4 %	6,2 %	7,6 %	6,9 %	7,0 %	7,2 %	6,7 %	7,3 %	8,2 %	7,7 %
"+3"	Total	69	85	112	115	6349	6407	9210	10337	9946	9100	12713	15690
	Share of world total	0,97 %	1,09 %	1,03 %	1,12 %	1,59 %	2,13 %	3,03 %	3,00 %	0,16 %	0,23 %	0,31 %	0,45 %

Source: Statistics Norway (SSB).

Appendix Table 22. Norwegian-controlled enterprises in Asia; Enterprises, Employed People and Turnover (in mill. NOK), by sector.													
Sector		Enterprises				Employed people				Turnover			
		2008	2009	2010	2011	2008	2009	2010	2011	2008	2009	2010	2011
All industries	Total	306	364	432	425	37707	38756	46174	48317	93772	94440	120578	135748
	Share of global	14,8 %	12,8 %	13,9 %	13,2 %	18,7 %	17,4 %	19,3 %	19,3 %	12,1 %	12,6 %	13,7 %	13,0 %
	Yearly growth		19,0 %	18,7 %	-1,6 %		2,8 %	19,1 %	4,6 %		0,7 %	27,7 %	12,6 %
Agriculture, forestry and fishing	Total	6	4	10	11	:	:	:	:	:	:	:	:
	Share of total	2,0 %	1,1 %	2,3 %	2,6 %								
Mining and quarrying	Total	25	34	35	29	1059	1291	1434	1109	20798	20468	21209	20254
	Share of total	8,2 %	9,3 %	8,1 %	6,8 %	2,8 %	3,3 %	3,1 %	2,3 %	22,2 %	21,7 %	17,6 %	14,9 %
Manufacturing	Total	113	135	163	159	11186	11805	16503	17334	24365	24193	37900	49434
	Share of total	36,9 %	37,1 %	37,7 %	37,4 %	29,7 %	30,5 %	35,7 %	35,9 %	26,0 %	25,6 %	31,4 %	36,4 %
Electricity and gas, water supply, sewerage, waste	Total	4	5	4	4	:	:	:	:	:	:	:	:
	Share of total	1,3 %	1,4 %	0,9 %	0,9 %								
Construction	Total	0	1	3	4	0	:	:	:	0	:	:	:
	Share of total	0,0 %	0,3 %	0,7 %	0,9 %	0,0 %				0,0 %			
Wholesale and retail trade	Total	21	28	21	18	794	862	654	598	2310	2031	1831	1488
	Share of total	6,9 %	7,7 %	4,9 %	4,2 %	2,1 %	2,2 %	1,4 %	1,2 %	2,5 %	2,2 %	1,5 %	1,1 %
Transportation and storage	Total	86	85	108	108	3913	3643	3973	5582	10881	9945	16237	15528
	Share of total	28,1 %	23,4 %	25,0 %	25,4 %	10,4 %	9,4 %	8,6 %	11,6 %	11,6 %	10,5 %	13,5 %	11,4 %
Accommodation and food service activities	Total	0	0	0	0	0	0	0	0	0	0	0	0
	Share of total	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %
Information and communication	Total	24	33	39	41	:	:	:	:	:	:	:	:
	Share of total	7,8 %	9,1 %	9,0 %	9,6 %								
Financial and insurance act.	Total	7	8	10	9	44	875	129	69	57	232	301	113
	Share of total	2,3 %	2,2 %	2,3 %	2,1 %	0,1 %	2,3 %	0,3 %	0,1 %				

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Continued Appendix Table 22. Norwegian-controlled enterprises in Asia...

Sector		Enterprises				Employed people				Turnover			
		2008	2009	2010	2011	2008	2009	2010	2011	2008	2009	2010	2011
Real estate activities	Total	2	2	1	1	:	:	:	:	:	:	:	:
	Share of total	0,7 %	0,5 %	0,2 %	0,2 %								
Professional, scientific and technical activities	Total	16	28	33	35	3005	3065	3364	3625	2940	2630	3198	3598
	Share of total	5,2 %	7,7 %	7,6 %	8,2 %	8,0 %	7,9 %	7,3 %	7,5 %	3,1 %	2,8 %	2,7 %	2,7 %
Administrative and support service activities	Total	2	1	5	6	:	:	48	82	:	:	71	33
	Share of total	0,7 %	0,3 %	1,2 %	1,4 %			0,1 %	0,2 %			0,1 %	0,02 %
Other industries	Total	0	0	0	0	0	0	0	0	0	0	0	0
	Share of total	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %	0,0 %

Source: Statistics Norway (SSB).

Appendix Table 23. Norwegian-controlled enterprises abroad: The average number of persons and total turnover per firm in 2011, by region and in Asian countries.		
Country	Average persons per firm	Average turnover per firm (million NOK)
World	78	324
Europe	65	269
Nordic countries	59	305
Asia	114	319
Australia	86	471
Brunei	0	0
Philippines	23	78
Hong Kong	12	89
India	209	131
Indonesia	94	143
Japan	13	67
Cambodia	0	0
China	119	160
Lao	0	0
Malaysia	138	500
Myanmar	0	0
New Zealand	5	15
Singapore	45	379
Korea	52	113
Thailand	272	724
Vietnam	101	69
"16-countries"	99	298
ASEAN	90	401
"+3"	90	136
Source: Statistics Norway (SSB).		

Appendix Table 24. Norway`s services trade with Asia by sector and country, 2012 (BPM6). In million NOK.													
Country		Total Services	Transport	Travel	Communication	Construction	Insurance	Financial	Computer & Information	Royalties & License fees	Other Business	Personal, Cultural & Recreational	Governm. Services, n.i.e
Indonesia	Balance	242	338	-178	0	1	1	0	-1	0	82	0	0
	Export	737	533	0	0	1	2	0	0	0	202	0	0
	Import	495	195	178	0	0	1	0	1	0	120	0	0
Malaysia	Balance	847	270	-264	30	8	2	0	21	15	772	-6	0
	Export	1 514	425	0	30	8	2	0	114	15	919	0	0
	Import	666	155	264	0	1	1	0	93	0	148	6	0
Thailand	Balance	-1 256	76	-1 498	28	0	1	2	35	1	101	-1	0
	Export	433	79	0	37	0	1	2	53	5	180	0	0
	Import	1 689	154	1 498	10	0	1	0	18	5	79	1	0
Vietnam	Balance	0	28	-89	5	0	0	0	-1	0	57	0	0
	Export	114	38	0	5	0	0	0	0	0	71	0	0
	Import	114	10	89	0	0	0	0	1	0	14	0	0
Myanmar	Balance	0	0	0	0	0	0	0	0	0	0	0	0
	Export	0	0	0	0	0	0	0	0	0	0	0	0
	Import	0	0	0	0	0	0	0	0	0	0	0	0
Philippines	Balance	-125	26	-125	17	-3	0	9	-14	9	-44	0	0
	Export	138	78	0	17	2	1	9	1	9	20	0	0
	Import	263	53	125	0	5	0	0	15	0	65	0	0
Lao PDR	Balance	12	0	0	0	1	0	0	0	0	11	0	0
	Export	14	0	0	0	1	0	0	0	0	12	0	0
	Import	1	0	0	0	0	0	0	0	0	1	0	0
Cambodia	Balance	-2	0	0	0	0	0	0	0	0	-2	0	0
	Export	0	0	0	0	0	0	0	0	0	0	0	0
	Import	2	0	0	0	0	0	0	0	0	2	0	0
Singapore	Balance	906	1 187	0	45	114	26	219	113	88	-877	-8	0
	Export	6 016	2 395	0	57	135	43	219	157	88	2 919	3	0
	Import	5 110	1 208	0	12	21	16	0	44	0	3 797	11	0

Continued Appendix Table 24. Norway`s services trade with Asia by sector and country...													
Country		Total Services	Transport	Travel	Communication	Construction	Insurance	Financial	Computer & Information	Royalties & License fees	Other Business	Personal, Cultural & Recreational	Governm. Services, n.i.e
Brunei	Balance	689	5	0	0	2	0	0	0	0	682	0	0
	Export	693	8	0	0	0	0	0	0	0	683	0	0
	Import	3	2	0	0	2	0	0	0	0	1	0	0
Korea	Balance	791	886	0	6	-1 482	3	0	29	0	1 354	-5	0
	Export	3 618	1733	0	10	144	4	0	47	0	1 678	0	0
	Import	2 826	847	0	5	1 625	2	0	19	0	324	5	0
Japan	Balance	38	-513	140	13	-121	2	3	30	11	499	-26	0
	Export	2 525	1 347	140	14	9	4	9	133	16	856	1	0
	Import	2 486	1860	0	1	130	1	6	103	5	354	27	0
China	Balance	2 252	828	-261	11	127	26	1	-94	-2	1 753	-137	0
	Export	4 829	1 814	0	17	254	42	1	51	1	2 647	1	0
	Import	2 577	986	261	7	127	16	0	145	3	893	138	0
India	Balance	484	527	-89	5	13	3	1	-219	0	248	-5	0
	Export	1 535	763	0	9	14	5	1	55	2	686	0	0
	Import	1 051	236	89	4	2	2	0	274	2	438	5	0
Australia	Balance	2 942	2 358	-835	20	50	12	2	106	2	1 235	-7	0
	Export	5 948	3 568	0	26	52	20	2	131	7	2 139	4	0
	Import	3 006	1 210	835	6	3	7	0	24	4	904	11	0
New Zealand	Balance	139	108	0	0	0	0	0	-4	0	35	0	0
	Export	235	174	0	0	0	1	0	1	0	59	0	0
	Import	96	66	0	0	0	0	0	6	0	24	0	0
Hong Kong	Balance	-391	-110	0	-9	3	10	21	48	0	-327	-26	0
	Export	246	25	0	0	0	17	21	50	0	128	2	0
	Import	637	135	0	9	3	6	0	2	0	456	28	0
ASEAN	Balance	1 316	1 779	-2 154	124	118	30	230	153	112	779	-15	0
	Export	9 659	3 556	0	146	147	49	230	325	117	5 006	3	0
	Import	8 343	1 777	2 154	22	29	19	0	172	5	4 227	18	0

Continued Appendix Table 24. Norway`s services trade with Asia by sector and country...													
Japan, Korea, China	Balance	3 083	1 201	-121	28	-1475	31	4	-36	9	3 610	-168	0
	Export	10 972	4 894	140	41	407	50	10	231	17	5 181	2	0
	Import	7 889	3 693	261	13	1 882	19	6	267	8	1 571	170	0
Source: Statistics Norway (SSB).													

Appendix Table 25. Norway's five most important services trade partners in Asia in 2012, for each services sector (BPM6).										
Rank	Total Services	Transport	Travel	Communication	Construction	Insurance	Financial	Computer & Inform.	Royalties & License fees	Other Business
EXPORT										
1	Singapore	Australia	Japan	Singapore	China	Singapore	Singapore	Singapore	Singapore	Singapore
2	Australia	Singapore	-	Thailand	Korea	China	Hong Kong	Japan	Japan	China
3	China	China	-	Malaysia	Singapore	Australia	Japan & Philippines	Australia	Malaysia	Australia
4	Korea	Korea	-	Australia	Australia	Hong Kong	Thailand, China & Australia	Malaysia	Philippines	Korea
5	Japan	Japan	-	China & Philippines	India	India	-	India	Australia	Malaysia
IMPORT										
1	Singapore	Japan	Thailand	Singapore	Korea	Singapore & China	Japan	India	Japan & Thailand	Singapore
2	Australia	Australia	Australia	Thailand	Japan	Australia	-	China	Australia	Australia
3	Korea	Singapore	Malaysia & China	Hong Kong	China	Hong Kong	-	Japan	China	China
4	China	China	Indonesia	China	Singapore	Korea & India	-	Malaysia	India	Hong Kong
5	Japan	Korea	Philippines	Australia	Philippines	Indonesia, Malaysia, Thailand & Japan	-	Singapore	-	Japan
Source: Statistics Norway (SSB).										

Appendix Table 26. The Government Pension Fund Global (GPFG): Investments in Asia-16 and shares by country and type of investment (based on market value 2012).							
Country	Type of Investment	Market value of investments (in billion NOK)	Number of investments	Total market value of the whole fund (world) (in billion NOK)	Total market value of investments in Asia & Oceania (in billion NOK)	Share of total investments in Asia & Oceania	Share of total investments for the whole fund (world)
Indonesia							
	Equity	5,542	55	2 336			0,24 %
	Fixed Income	7,507	1	1 455			0,52 %
	Total	13,051	56	3 816	583,5	2,24 %	0,34 %
Malaysia							
	Equity	10,232	79	2 336			0,44 %
	Fixed Income	5,378	2	1 455			0,37 %
	Total	15,610	81	3 816	583,5	2,68 %	0,41 %
Singapore							
	Equity	13,676	98	2 336			0,59 %
	Fixed Income	0,402	6	1 455			0,30 %
	Total	18,077	104	3 816	583,5	3,10 %	0,47 %
Thailand							
	Equity	5,754	44	2 336			0,25 %
	Fixed Income	6,729	4	1 455			0,46 %
	Total	12,484	48	3 816	583,5	2,14 %	0,33 %
Vietnam							
	Equity	0	not invested in	2 336			0,00 %
	Fixed Income	0	not invested in	1 455			0,00 %
	Total	0	not invested in	3 816	583,5	0,00 %	0,00 %
Philippines							
	Equity	3,278	36	2 336			0,14 %
	Fixed Income	0,0065	1	1 455			0,0004 %
	Total	3,285	37	3 816	583,5	0,56 %	0,09 %
Myanmar							
	Equity	0	not invested in	2 336			0,00 %
	Fixed Income	0	not invested in	1 455			0,00 %
	Total	0	not invested in	3 816	583,5	0,00 %	0,00 %
Brunei							
	Equity	0	not invested in	2 336			0,00 %
	Fixed Income	0	not invested in	1 455			0,00 %
	Total	0	not invested in	3 816	583,5	0,00 %	0,00 %

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Continued Appendix Table 26. The Government Pension Fund Global (GPFG)...							
Laos							
	Equity	0	not invested in	2 336			0,00 %
	Fixed Income	0	not invested in	1 455			0,00 %
	Total	0	not invested in	3 816	583,5	0,00 %	0,00 %
Cambodia							
	Equity	0	not invested in	2 336			0,00 %
	Fixed Income	0	not invested in	1 455			0,00 %
	Total	0	not invested in	3 816	583,5	0,00 %	0,00 %
China							
	Equity	37,847	303	2 336			1,62 %
	Fixed Income	5,801	4	1 455			0,40 %
	Total	43,648	307	3 816	583,5	7,48 %	1,14 %
India							
	Equity	14,325	122	2 336			0,61 %
	Fixed Income	7,359	3	1 455			0,51 %
	Total	21,684	125	3 816	583,5	3,72 %	0,57 %
Japan							
	Equity	124,426	1243	2 336			5,33 %
	Fixed Income	105,856	9	1 455			7,28 %
	Total	230,281	1252	3 816	583,5	39,46 %	6,03 %
South-Korea							
	Equity	39,332	229	2 336			1,68 %
	Fixed Income	23,463	16	1 455			1,61 %
	Total	62,796	245	3 816	583,5	10,76 %	1,65 %
Australia							
	Equity	53,322	261	2 336			2,28 %
	Fixed Income	29,834	22	1 455			2,05 %
	Total	83,156	283	3 816	583,5	14,25 %	2,18 %
New Zealand							
	Equity	1,108	20	2 336			0,05 %
	Fixed Income	3,438	6	1 455			0,24 %
	Total	4,546	26	3 816	583,5	0,78 %	0,12 %

Source: NBIM.

Appendix Table 27. Norway`s total aid by region, measured in billion NOK.				
Region	Amount of aid 1960-2012, measured in billion NOK (constant 2012 NOK)	Percentage share of total aid 1960-2012	Amount of aid in 2012, measured in billion NOK	Percentage share of total aid in 2012
Africa	152,2	27,9 %	5,6	20,3 %
America	23,3	4,3 %	2,1	7,6 %
Europe	19,4	3,6 %	0,7	2,5 %
Middle East	15,3	2,8 %	1,1	4,0 %
Asia	75,2	13,8 %	2,7	9,8 %
Oceania	0,28	0,05 %	0,009	0,03 %
ASEAN	11,9	2,2 %	0,6	2,2 %
China, Japan, Korea	14,5	2,7 %	0,9	3,3 %
Source: NORAD.				

Appendix Table 28. Norwegian aid to Asia: Overview over total aid and shares by country and type, 2000-2012 in current prices (2012 NOK).

Recipient country	Target area	Total aid, 2000-2005 (in 1000 NOK)	Average aid, 2000-2005 (in 1000 NOK)	Relative aid, average	Total aid, 2006-2012 (in 1000 NOK)	Average aid, 2006-2012 (in 1000 NOK)	Relative aid, average
Cambodia	Economic development and trade	41 340	6 890	17,86 %	52 107	8 685	22,60 %
	Education	26 710	4 452	11,54 %	51 971	8 662	22,54 %
	Emergency assistance	15 947	2 658	6,89 %	5 622	937	2,44 %
	Environment and energy	399	66	0,17 %	484	81	0,21 %
	Good governance	98 786	16 464	42,68 %	82 799	13 800	35,91 %
	Health and social services	43 645	7 274	18,86 %	37 533	6 256	16,28 %
	In donor costs and unspecified	4 651	775	2,01 %	44	7	0,02 %
Cambodia Total		231 478	38 580		230 561	38 427	
China	Economic development and trade	164 698	27 450	25,52 %	102 415	17 069	11,17 %
	Education	29 167	4 861	4,52 %	49 250	8 208	5,37 %
	Emergency assistance	7 105	1 184	1,10 %	52 140	8 690	5,69 %
	Environment and energy	153 599	25 600	23,80 %	435 984	72 664	47,54 %
	Good governance	78 310	13 052	12,13 %	143 016	23 836	15,59 %
	Health and social services	171 840	28 640	26,63 %	127 348	21 225	13,89 %
	In donor costs and unspecified	40 644	6 774	6,29 %	6 851	1 142	0,75 %
China Total		645 363	107 560		917 004	152 834	
India	Economic development and trade	118 630	19 772	17,57 %	243 294	40 549	21,41 %
	Education	90 276	15 046	13,37 %	16 710	2 785	1,47 %
	Emergency assistance	79 987	13 331	11,84 %	16 538	2 756	1,46 %
	Environment and energy	222 404	37 067	32,93 %	255 855	42 643	22,52 %
	Good governance	43 719	7 287	6,47 %	136 885	22 814	12,05 %
	Health and social services	103 457	17 243	15,32 %	461 907	76 984	40,66 %
	In donor costs and unspecified	16 897	2 816	2,50%	4 913	819	0,43 %
India Total		675 371	112 562		1 136 102	189 350	

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Continued Appendix Table 28. Norwegian aid to Asia...

Recipient country	Target area	Total aid, 2000-2005 (in 1000 NOK)	Average aid, 2000-2005 (in 1000 NOK)	Relative aid, average	Total aid, 2006-2012 (in 1000 NOK)	Average aid, 2006-2012 (in 1000 NOK)	Relative aid, average
Indonesia	Economic development and trade	161 834	26 972	26,33 %	56 104	9 351	7,60 %
	Education	39 777	6 629	6,47 %	19 252	3 209	2,61 %
	Emergency assistance	151 118	25 186	24,58 %	33 955	5 659	4,60 %
	Environment and energy	114 308	19 051	18,59 %	392 721	65 453	53,22 %
	Good governance	96 261	16 044	15,66 %	214 093	35 682	29,01 %
	Health and social services	41 687	6 948	6,78 %	19 147	3 191	2,59 %
	In donor costs and unspecified	9 712	1 619	1,58 %	2 695	449	0,37 %
Indonesia Total		614 697	102 450		737 967	122 995	
Laos	Economic development and trade	26 827	4 471	9,89 %	6 291	1 048	2,62 %
	Education	22 591	3 765	8,33 %	30 472	5 079	12,69 %
	Emergency assistance	1 179	196	0,4345 %		0	0,00 %
	Environment and energy	74 527	12 421	27,47 %	121 885	20 314	50,78 %
	Good governance	51 014	8 502	18,80 %	49 285	8 214	20,53 %
	Health and social services	85 799	14 300	31,63 %	30 432	5 072	12,68 %
	In donor costs and unspecified	9 366	1 561	3,45 %	1 662	277	0,69 %
Laos Total		271 302	45 217		240 027	40 005	
Malaysia	Economic development and trade	2 485	414	8,24 %	5 832	972	15,98 %
	Environment and energy		0	0,00 %	7 339	1 223	20,12 %
	Good governance	5 331	888	17,67 %	9 710	1 618	26,62 %
	Health and social services	1 615	269	5,35 %		0	0,00 %
	In donor costs and unspecified	20 740	3 457	68,74 %	13 596	2 266	37,27 %
Malaysia Total		30 171	5 028		36 476	6 079	

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Continued Appendix Table 28. Norwegian aid to Asia...

Recipient country	Target area	Total aid, 2000-2005 (in 1000 NOK)	Average aid, 2000-2005 (in 1000 NOK)	Relative aid, average	Total aid, 2006-2012 (in 1000 NOK)	Average aid, 2006-2012 (in 1000 NOK)	Relative aid, average
Myanmar	Economic development and trade	13 893	2 316	5,79 %	65 417	10 903	7,98 %
	Education	705	117	0,29 %	35 629	5 938	4,34 %
	Emergency assistance	100 820	16 803	42,06 %	339 286	56 548	41,37 %
	Environment and energy		0	0,00 %	18 160	3 027	2,21 %
	Good governance	70 134	11 689	29,26 %	218 794	36 466	26,68 %
	Health and social services	44 118	7 353	18,40 %	135 241	22 540	16,49 %
	In donor costs and unspecified	10 049	1 675	4,19 %	7 526	1 254	0,92 %
Myanmar Total		239 719	39 953		820 052	136 675	
Philippines	Economic development and trade	52 152	8 692	41,50 %	11 707	1 951	1,72 %
	Education	781	130	0,62 %	175	29	0,03 %
	Emergency assistance	16 774	2 796	13,35 %	7 324	1 221	1,09 %
	Environment and energy	6 222	1 037	4,95 %	554 418	92 403	81,63 %
	Good governance	22 371	3 729	17,80 %	80 549	13 425	11,86 %
	Health and social services	24 800	4 133	19,74 %	12 987	2 164	1,91 %
	In donor costs and unspecified	2 553	426	2,03 %	11 988	1 998	1,77 %
Philippines Total		125 652	20 942		679 147	113 191	
Thailand	Economic development and trade	28 146	4 691	22,36 %	12 763	2 127	14,86 %
	Education	3 214	536	2,55 %	1 479	247	1,72 %
	Emergency assistance	52 853	8 809	41,98 %	4 837	806	5,63 %
	Environment and energy	1 651	275	1,31 %	2 422	404	2,82 %
	Good governance	4 342	724	3,45 %	27 462	4 577	31,98 %
	Health and social services	4 835	806	3,84 %	10 165	1 694	11,84 %
	In donor costs and unspecified	30 847	5 141	24,50 %	26 756	4 459	31,15 %
Thailand Total		125 888	20 981		85 884	14 314	

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Continued Appendix Table 28. Norwegian aid to Asia...

Recipient country	Target area	Total aid, 2000-2005 (in 1000 NOK)	Average aid, 2000-2005 (in 1000 NOK)	Relative aid, average	Total aid, 2006-2012 (in 1000 NOK)	Average aid, 2006-2012 (in 1000 NOK)	Relative aid, average
Viet Nam	Economic development and trade	143 240	23 873	28,19 %	563 068	93 845	45,66 %
	Education	89 780	14 963	17,67 %	151 465	25 244	12,28 %
	Emergency assistance	21 346	3 558	4,20 %	19 625	3 271	1,59 %
	Environment and energy	97 399	16 233	19,17 %	87 734	14 622	7,11 %
	Good governance	56 651	9 442	11,15 %	146 679	24 447	11,89 %
	Health and social services	89 147	14 858	17,54 %	249 889	41 648	20,26 %
	In donor costs and unspecified	10 553	1 759	2,08 %	14 781	2 464	1,19 %
Viet Nam Total		508 115	84 686		1 233 241	205 540	
Asia Regional	Economic development and trade	143 480	23 913	11,39 %	149 749	24 958	13,84 %
	Education	60 116	10 019	4,78 %	71 663	11 944	6,6250 %
	Emergency assistance	513 342	85 557	40,78 %	98 727	16 454	9,13 %
	Environment and energy	181 302	30 217	14,40 %	305 537	50 923	28,25 %
	Good governance	210 291	35 049	16,71 %	330 006	55 001	30,51 %
	Health and social services	143 863	23 977	11,43 %	104 795	17 466	9,699 %
	In donor costs and unspecified	6 360	1 060	0,51 %	21 233	3 539	1,96 %
Asia Regional Total		1 258 753	209 792		1 081 710	180 285	

Source: NORAD.