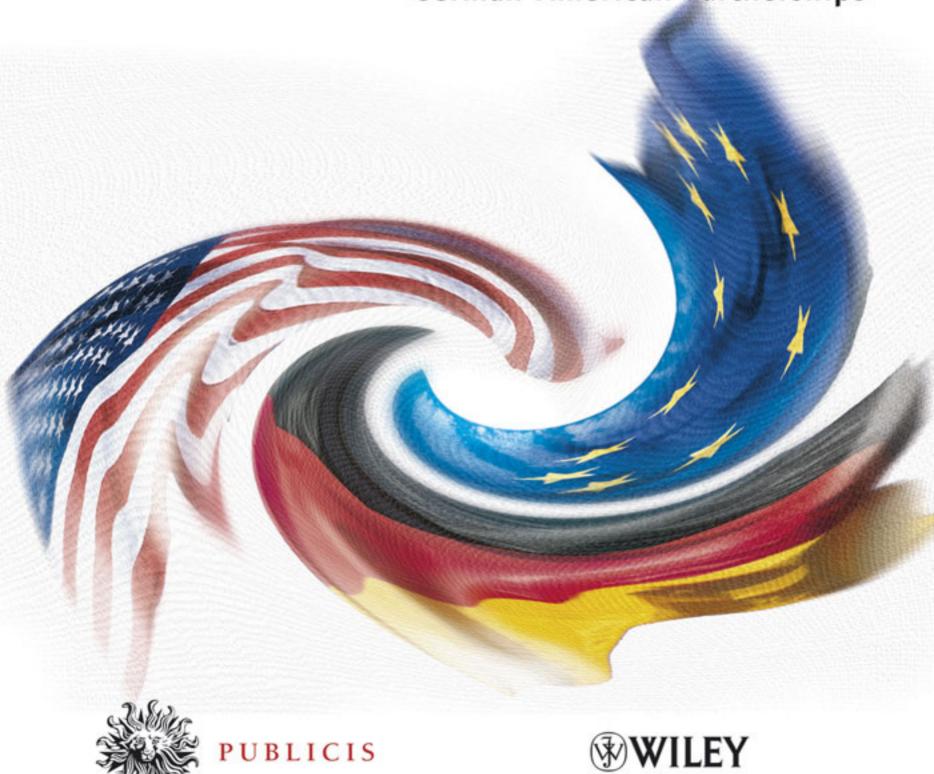
Kai Lucks (Ed.)

Transatlantic Mergers and Acquisitions

Opportunities and Pitfalls in German-American Partnerships



Lucks (Editor) Transatlantic Mergers & Acquisitions

Transatlantic Mergers & Acquisitions

Opportunities and Pitfalls in German-American Partnerships

Kai Lucks (Editor)





Bibliographic information published by Die Deutsche Bibliothek Die Deutsche Bibliothek lists this publication in the Deutsche Nationalbibliografie; detailed bibliographic data is available in the Internet at http://dnb.ddb.de.

This book was carefully produced. Nevertheless, author and publisher do not warrant the information contained therein to be free of errors. Neither the authors and the editor nor the publisher can assume any liability or legal responsibility for omissions or errors. Terms reproduced in this book may be registered trademarks, the use of which by third parties for their own purposes may violate the rights of the owners of those trademarks.

www.publicis-erlangen.de/books www.wiley-vch.de

ISBN 3-89578-262-9

A joint publication of Publicis Corporate Publishing and Wiley-VCH-Verlag GmbH & Co KGaA

© 2005 by Publicis Kommunikations Agentur GmbH, GWA, Erlangen This publication and all parts thereof are protected by copyright. All rights reserved. Any use of it outside the strict provisions of the copyright law without the consent of the publisher is forbidden and will incur penalties. This applies particularly to reproduction, translation, microfilming or other processing, and to storage or processing in electronic systems. It also applies to the use of extracts from the text.

Printed in Germany

Contents

1 I	Introduction 9
2 N	Markets and Structures
_	en Weber
2.1	Going Where the Markets Are – M&A in Germany
	iel S. Hamilton and Joseph P. Quinlan U.SGerman Relations: Will the Ties that Bind Grow Stronger or Weaker? 20
	cus Schenck, Frank Richter, Karoline Jung-Senssfelder Capital Market – Hurdle or Help in Transatlantic M&A
	an Griesser and Thomas Schwingeler Transatlantic M&A Market – Volumes and Dynamics
	** Kröger Success and Success Factors of US-German Mergers
	Experiences from Industries Automotive
	iger Grube
	1 The Post-Merger Integration Process of DaimlerChrysler AG
	nz Hermann Thiele Transatlantic Mergers and Acquisitions: "Follow our customers"74
3.2	Banking & Finance
	Wieandt and Rafael Moral y Santiago 1 Growing in the U.S. – Review of Deutsche Bank's M&A Strategy in North America
3.3	Consumer & Health
	ar Steinebach, Steve Blum, Helmut B. Nuhn 1 Henkel's Acquisition of The Dial Corporation, Scottsdale, USA97
	hael Kaschke and Udo Philipp 2 Carl Zeiss Vision – A Merger of the Carl Zeiss Eyeglass Division with Sola International, Inc

	ng Reim, Rudolf-Henning Lohse, Carsten Kratz Air-Shields Integration into Dräger Medical: Experiences in
	the Medical-Equipment Industry
3.4 E	lectro & Electronics
George	Nolen
	Investing Locally to Grow Globally: Siemens M&A Strategy in the U.S. Market
Kai Luc	
	Siemens Power Generation – Transatlantic M&A in a Consolidating Industry
	H. Zwirn
	The Siemens-Westinghouse Case: Integration in the Eyes of the US Management
3.5 In	nformation Technology
	Kreuz and Jürgen Rothenbücher
3.5.1	Acquisition of Systematics by EDS – the First 100 Days
_	. <i>Möller</i> German Roots, American "Drive": The Ingram Micro & Macrotron Case 166
3.6 L	ogistics & Transportation
	Zumwinkel
3.6.1	Integration at its Best – The Takeover of AEI by Deutsche Post World Net . 170
	lesuthasan and Helmuth L. Uder
3.6.2	How HR Contributes to Merger Success
3.7 M	Taterials & Chemicals
	a S. Jeremiah and Konrad J. von Szczepanski
3.7.1	Divestitures at Alcoa – How to Create Value from Shrinking the Portfolio . 191
_	ellmann and Oliver Maier
3.7.2	Degussa's Execution Experience with Transatlantic M&A Projects 196
3.8 M	Iedia
	offmann
	The Jamba! Case: US Investors in Germany – What They Bring, How They Do It (US/German M&A Experience from a German Perspective) 209
3.9 Pi	rivate Equity Investments
	Wunderle
3.9.1	US Private Equity in the German Property Market
	Schmidt
	Is Small Cap Private Equity an International Business? – Differences in the U.S. versus Continental Europe

	ofessional Contributions
4.1 St	rategy
	hädler and Reto Isenegger Strategic Alliances: Smart Alternatives to Mergers and Acquisitions? 233
	Cks Management of Complex M&A Projects: Challenges in Transatlantic Deals
4.1.3	d Plaschka, Rohit Verma, Douglas Squeo "Seen, but not Heard!" Predicting M&A Outcomes from the Customer Perspective
4.2 L	eadership & Corporate Governance
4.2.1	G. Matthiessen, Allison S. Bailey, Jeanie Daniel Duck The Impact of Management and Leadership Behaviors on German- American M&A
4.2.2	gerer and Christopher Winckler US and German Corporate Governance Issues and Their Implications on M&A Transactions
4.3 St	cock Markets
4.3.1	a Oppenhoff and Dirk Horcher Application and Impact of U.S. Capital Markets Law on Public Tender Offers Under the Security Purchase and Take-over Act
	Ripin and Volker Geyrhalter Delisting – the US and the German Perspective
4.4 Fi	nancing & Controlling
-	nd J. Fisher and Fabian Ehlers High Yield Bonds: A U.S. Product for German Financing Purposes 310
	Girnth Tracking Stock – A Smart Concept for Acquisitions in Diversified Businesses
	chetmeier-Müller and Ingmar Doerr Thin Capitalization Rules in Germany and the United States
	J. DaSilva Share Pledges in German/US Mergers and Acquisitions
4.5 Va	aluation & Due Diligence
4.5.1	d Bögle and Rainer Bätz Differences in Valuation Methods – A Comparison of Income Approach Valuation
	Christopher Schweiger Cross Border Due Diligence and Beyond

4.6 T	Tax 3	64
	ne Schreiber, Julianne Reynolds, and Carolina Perez-Lopez German and US Tax Aspects of Private Equity Funds	364
	r Stadler and Thomas Elser Investments in US Opportunity Funds from the German Tax Perspective 3	372
4.7 N	Merger Control	881
	Pre-Nuptial Puritanism for Corporate Marriages – Antitrust Limits on the Pre-consummation Relationship Between Merging Parties	381
Martii 4.7.2	The Role of Third Party Interveners in Merger Investigations before the Competition Authorities and in Judicial Review Proceedings	388
4.8 I	IR & Pensions	394
	. Tworeck Effective People Management in US-German Mergers	394
	nne Waldenmaier, Isabella Bach-Alexander, Thomas Bader and Markus Ebert Outsourcing of Pension Obligations by German Corporations through Implementation of a Contractual Trust Arrangement (CTA)	102
4.9 (Communications & Culture 4	11
	nder Geiser and Nikolai Juchem Key Factors for Successful M&A Communications in Germany 4	11
	oph Walther and Roland Klein Due Diligence for M&A Communications	125
	k Schmidt Bridging the Intercultural Gap: Non-conventional Truths about American-German Business	129
	A Palazzo, Craig DeForest and Bernhard K.F. Pelzer How to Merge German and American Talents to Achieve a Cross-Atlantic Culture of Understanding and Shared Success?	138
5 A	ppendix	
Large	e transatlantic M&A transactions from 1998 until 2005	48
Cont	ributors	154
Inde	x of Mentioned Companies 4	178

1 Introduction

This book seeks to convey three messages: The importance of transatlantic mergers and acquisitions, their poor success rate on average to date and the outstanding results that top players achieve. The U.S. and Germany are each other's most important investors. Diligence, experience management and knowledge management can considerably improve the success rate of acquisition projects. They are thus key to tapping the tremendous potential for increasing value. The examples and articles in this book demonstrate how this can be achieved.

The economic role of TMA

Corporate mergers and acquisitions have become the hallmark of rapid economic change, particularly when it comes to the consolidation-based competition going on within Western industrialized countries. Companies seeking to establish themselves in mature markets cannot afford to engage in years of competition as a means of edging out their competitors. Instead, the acquisition of a national player has now become the method of choice for entering a market. Given the broadening scope of technological options and ever-shorter product lifecycles, acquisitions increasingly secure products and technologies that no single company would be able to develop on its own. These are the main factors driving transatlantic M&A activity today.

At \$57 billion, the gross product generated by German affiliates in the U.S. (2002) is roughly the same as the revenues generated by subsidiaries of U.S. companies in Germany (\$60 billion¹). U.S.-German M&A projects are among the biggest deals worldwide (see the overview at the end of this book). At €65 billion, the volumes of U.S.-German M&A projects in both directions have been more or less equal over the last five years². Most of the activity from Germany has been in the form of strategic engagements, with the volume showing a declining trend after the stock market hype in 2002. Americans are investing more and more in Germany, particularly equity investors.

¹ US Bureau of Economic Analysis: US-German linkages, gross product of majority-owned foreign affiliates

² According to Thomson Financials. Compare US Bureau of Economic Analysis: US Outflows to Germany 2000-2004 = \$30.6 billion, US Outflows from Germany 2000-2004 = \$63.5 billion

The markets

The structures of companies engaging in strategic acquisitions vary widely on the two sides of the Atlantic. German companies aiming to make the transatlantic leap generally already have a broad international presence in the European market. For them, entering the U.S. means tapping into the world's biggest single homogenous market. For budding transatlantic dealmakers from the U.S., on the other hand, the acquisition of a European company is aimed not only at achieving a leading position within the German market but also at establishing a broad presence in Western and Eastern Europe and developing a broad-based, multicultural management system to manage the diversity of markets and business entities there.

Given the dominance of the U.S. market and Germany's relative size within the European market, U.S.-German M&A activities are often among the most important strategic movements as the Western markets become more and more consolidated. Thus, the stakeholders on either side of the Atlantic often find themselves face to face with their strongest competitors. Once the M&A game has commenced in an industry, there is often a cascade of countermovements through M&A or organic defensive measures.

The limited number of candidates and the difficulties associated with trying to harmonize strategies and targets demands patience and endurance. It often takes years before a company's desired candidate becomes available, as was the case in the Siemens-Westinghouse example. And even then, the two companies may not always be a perfect match, as with Henkel and Dial. In such cases, buyers may have to settle for their second choice. If the necessary size increase is not achieved instantly, resources can be tied up for years, not only for integration but also for the subsequent organic development of the company's market presence. In many ways, Germany offers Americans the best platform for making a big entrance on the European markets. Germany is a leading location for industry and lies at the geographical center of Europe. It is home to strong players with holdings and relationships with low-cost suppliers in Eastern Europe, which is just a few hours' drive away.

Strategies

Until now, the markets for strategic investors (those seeking to achieve synergies) and financial investors (those primarily seeking to increase value through turnaround and by leveraging capital) have been largely separate. Increasingly, the massive financial resources available – particularly to U.S. funds – and the extensive portfolios managed by players like KKR are bringing the M&A markets together. Private equity firms are now also pursuing M&A strategies within their broad portfolios. Thus, they have also become serious competitors in the race for strategic targets and are now in a position to use their buying power to take on, take over and dissemble even large international players. Today, U.S. funds hold significant German assets that were previously in government hands.

For many companies, tapping into the huge market across the Atlantic is a top strategic and operative priority. A strong baseline position in the most important mature

industrialized countries is often essential to developing the endurance needed for long drawn-out attempts to move into the new growth regions. New global players are rapidly emerging in the "BRIC" countries (Brazil-Russia-India-China). This makes transatlantic consolidation a must for companies that want to keep pace with the movement toward globalization in the decades ahead and to compete with newly emerging giants from the Far East.

What's different in the U.S. and Germany?

The differences between Americans and Germans lie in the goals they set, their structures and their tolerance for risk. For Americans, M&A is the method of choice for entering markets and developing technologies quickly. They are more likely to shy away from the inherent risks of tying up resources for long periods for organic growth, particularly when it comes to R&D endeavors. Americans tend to view the risks associated with M&A as part of doing business (see article by Matthiessen/Daniel, chapter 4.2.1). By contrast, Germans tend to focus more on endogenous growth through research and development and consider external growth to be riskier. Consequently, the M&A market is less developed in Germany. Higher levels of spending on R&D and on serving heterogeneous national markets keep profit margins down, making the cost of acquiring these German companies comparatively low, and thus an appealing prospect for U.S. companies.

Success and complexity

However, this appeal is muted somewhat by the M&A success rate, a mere 30% – 50% on the whole, based on the relative development of share prices following acquisitions. Transatlantic M&A deals fare even worse on average. Large-scale transatlantic M&A projects have a particularly low success rate, destroying vast assets within national economies in their wake. The commonly expressed optimism that Germans and Americans are particularly close because of the special relationship that evolved from the post-war era's Marshall Plan, reconstruction and export ties - and that corporate mergers should therefore be easier – flies in the face of reality. According to analyses in several articles within this book, companies' overestimation of their own capabilities and underestimation of the challenges involved (compare my article on management of complex M&A projects, chapter 4.1.2) are the real cause of M&A failures. Large M&A deals - and particularly in transatlantic business, this is generally the case – are often driven by management egos. However, once ego takes over, barriers go undetected, general due diligence takes a back seat and the projects end in disaster. Even authoritative writings on M&A often don't take these considerations seriously enough. Many authors content themselves with merely enumerating situational snapshots of individual deals rather than systematically examining management problems. The American "way of M&A" is characterized by pragmatism and confidence in general management abilities. However, studies show that the expertise and skills that are critical for M&A are quite different from those needed to ensure continuity in ongoing operations. Companies with better baseline performance do not necessarily have better chances of success with M&A. I had to learn from experience in numerous integration projects that M&A is always a balancing act. Too much pragmatism can easily result in chaos, while a rigid, systematic approach can generate complexities and create new problems instead of solving them. All the textbooks in the world can't replace experience, which is something that can only be acquired through painstaking, often frustrating practice.

TMA: Out of the comfort zone

Along with poor performance there are also cases of abuse in which financial investors looking to make short-term gains ignore the long-term consequences of a transaction. They leave in their wake companies overburdened with debt and they destroy jobs. These cases should be denounced. In the months just prior to the release of this book, such "black sheep" triggered a political debate in Germany that did little to help the situation. I spoke with numerous fund managers while preparing this book and am now more convinced than ever that professional and successful investors are in agreement that there is a correlation between the success and the sustainability of M&A investments.

The effects of the bubble economy and stock market hype in 2002 are still being felt today. The findings of fraud and misrepresentations resulted in a wave of new legislation like the Sarbanes-Oxley Act in the U.S., and new codes of conduct on both sides of the Atlantic. Making executives personally accountable for any information which might affect the stock price led to their becoming extremely cautious in any of their public statements. This, in turn, has caused today's 'legal advisory hype' - a phenomenon which also impacted this book. Half a dozen top executives from U.S. companies were highly motivated to tell their M&A stories and had committed early on to contributing them. Some of their texts had been ready for months. But when these were put through a series of legal reviews, the result was last minute withdrawals. I am grateful for offers by these executives to contribute to a possible second edition; their assumption is that, by that time, an open discussion about effectively managing M&A projects will be more commonplace. Their optimism that this book might be more than just a one-time event is heartening. However, due to this reticence on the part of senior U.S. managers to tell their stories at this time, most of the first-hand top management reports are from German companies, while the U.S. case studies are generally presented by consultants.

The subject of this book is anything but "comfortable." Transatlantic success cannot be achieved through simple formulas. Yet it is impossible to deny that mergers and acquisitions are a necessity. Anyone who avoids M&A due to fear or a lack of expertise is bound to lose out in today's consolidation-based competition and will be unable to achieve success in the growth regions.

The idea behind this book: Knowledge transfer

The idea for this book goes back to the first German-American Mergers & Acquisitions Day, which took place in New York on October 21, 2004, at the initiative of the German Federal M&A Association. Under the auspices of Jürgen Weber, the Federal

Commissioner for Foreign Investment in Germany, and together with the German-American Chamber of Commerce, we invited German and U.S. businesspeople and M&A specialists to Deutsche Bank's offices on Wall Street to share their experiences. The meeting was a success, not only in terms of the subject matter. Discussions among the participants were lively, continuing until the last of the attendees had to leave for the airport. M&A is a business that sparks emotion and always needs an "owner" who identifies with a project. But a case can only promise success if it is supported by technical expertise. The workshop's leaders agreed to undertake follow-up activities, of which this book is the first. It seeks to relay the knowledge and expertise to a broader audience, our readers.

Fundamentals of German-American M&A relationships

There is agreement among business people and experts that the success rate of M&A is largely determined by experience, knowledge transfer and technical diligence. Studies support this thesis. In this book, large companies that make frequent acquisitions and specialists who have established the necessary expertise management report on success stories. Among the most important rules for success are ensuring that the management has gained personal experience through the planning and implementation of comparable projects and ensuring that the disciplines needed for M&A are managed by proven experts.

It is along these lines that this book is structured. The first part provides information about the basics of German-American M&A relationships. Jürgen Weber illustrates the central role that Germany plays in the European strategies of U.S. companies. Daniel Hamilton and Joseph Quinlan outline the significance and structures of German-American shareholding relationships from a U.S. perspective. Thomas Schwingeler and Stefan Griesser document the transatlantic M&A market and its prospects for the future. Marcus Schenck, Frank Richter and Karoline Jung-Sennsfelder write about the capital market as a lever for transatlantic deals. And Fritz Kröger points out the direction that global consolidation is taking and analyzes the need for improvement.

Learning from M&A cases

In the second part of this book, representative examples illustrate what drives M&A in various industries and how success has been achieved in individual projects. The articles cover the major industries, different "classes" of companies (from large corporations to medium-sized enterprises to small, specialized operations) and a variety of case categories (from "strategic" projects involving special integration challenges to equity investors). The cases described here involve efforts to cross the Atlantic in both directions. A wide variety of business types are covered, from equipment manufacture to products and services to IT and asset acquisitions. Because of its heavier weighting in strategic investments, Germany is more prevalent here, while articles on private equity illustrate U.S. involvement in Germany. The selection of authors, many of whom are corporate executives like Rüdiger Grube (DaimlerChrysler), Lothar

Steinebach (Henkel), Hermann Thiele (Knorr), and Klaus Zumwinkel (Deutsche Post World Net), highlights the diversity of perspectives. With George Nolen (Siemens Corporation) and Randy Zwirn (Siemens-Westinghouse), we also hear from senior executives of German companies operating in the U.S. Smaller players from the new economy (Dirk Hoffmann: Jamba!) and the IT sector (Ingo Möller, Ingram Micro) also share their insights. Strategists like Axel Wiandt / Rafael Moral y Santiago of Deutsche Bank and Barbara Jeremia and Konrad von Sczcepanski of Alcoa write about movements in various industries. Jörg Sellmann and Oliver Maier of Degussa explain broadly based portfolio movements within corporations. We have also included joint presentations by companies and their consultants (in the case of Dräger Medical, presented by Wolfgang Reim and Carsten Kratz) and collaborations between strategic buyers and their equity partners (in the case of Zeiss-Sola aided by EQT, presented by Michael Kaschke and Udo Philipp). The private equity scene is represented by big specialists and small cap investors (Gernot Wunderle, Volker Schmidt). Helmut Uder's account of the Onex Food case from the human resources perspective serves as the segue to the specialized articles that make up part three of this book.

Leadership and strategies

The specialized articles in the third part of this book discuss the field of M&A specialists who should be involved, whether in-house experts or external consultants. The order of their appearance reflects the order of the project phases in which they are involved. We begin with strategic considerations, leadership concepts and corporate governance, offering various approaches to overarching perspectives. This includes a comparison of leadership behaviors by Joerg Matthiesen, Allison Bailey and Jeanie Daniel Duck as well as my own concept for managing complex transatlantic projects. Gerhard Plaschka, Rohit Verma and Douglas Squeo focus on customer reactions, a topic that has been sorely neglected in M&A on the whole. Their quantitative measurement methods are among the most innovative areas of M&A. Jens Schädler and Reto Isenegger cover the broader field of (non-equity) partnership between companies.

Transaction and cultural change

The next section covers transaction-oriented disciplines relating to stock markets, finance, controlling, measurement, due diligence, taxes and anti-trust law. Here too, we cannot limit ourselves to easy-to-digest, "simple fare." The articles in this section describe numerous important and innovative products. These in-depth explorations seek to illustrate the amount of specialist expertise and experience necessary for success. I ask for your understanding that I cannot name each and every one of the authors here. We then come to the more or less "soft" factors involved in integration projects. The segue here is provided by an article by Alexander Geiser and Nikolai Juchem, in which the authors seek to establish a link between capital market rules and communication. Patrick Schmidt sweeps away some preconceptions in this regard and leads us deep into the realm of linguistic messages while Bettina Palazzo, Craig

DeForest and Bernhard Pelzer round out the book with a fundamental discussion of U.S. pragmatism and "German thoroughness."

Creating new enterprise organisms

Only a well-orchestrated ensemble can ensure success. Whether a selection of distinguished chamber orchestra musicians or a large marching band that can perform precision drills is needed depends on the case at hand. As we mentioned above, only experienced practitioners can determine which size of ensemble and which blend of (American) pragmatism and "German thoroughness" is needed. Americans and Germans can learn a great deal from each other, and a combination of the two cultures and approaches promises the greatest success. In a merger, the goal is not so much to equalize the existing cultures but rather to bring together the cultural and structural differences that are so critical to successful operation in different markets, and to thereby form a single organism.

Acknowledgements

I would like to express my deepest gratitude to all of the friends, authors, association colleagues and publishing house employees who have made this book possible. Although M&A is one of the toughest work environments, you have sacrificed your time to be a part of this endeavor. My special thanks go to the many teams of analysts, assistants and ghost writers, without whom these articles would never have been possible. To two of them I want to personally express my gratitude, namely to Andreas Richter who assisted me in organization and processing and to Gerhard Seitfudem for publishing of this book.

With the firm conviction that transatlantic alliances and mergers can regularly be brought to successful fruition, this book seeks to lend encouragement in undertaking the corporate mergers and acquisitions that are essential to the future of our nations – with competence, mutual understanding and enthusiasm for a new venture together.

Munich, October 2005 Kai Lucks

2 Markets and Structures

2.1 Going Where the Markets Are – M&A in Germany

Jürgen Weber

The enlargement of the European Union in May 2004 brought forth a single market of 454 million consumers offering major opportunities for overseas investors. Germany presents itself as a business location in the very heart of the union whose attraction has appreciated considerably recently thanks to the country's drive for greater global competitiveness.

The essential questions when looking at capital investment overseas are similar to those facing a person when buying a home: The three most important things to consider carefully are – location, location, location.

Despite the popular conception of the "rising" economies of Asia and their big emerging markets, Europe and America continue to be the most powerful commercial players. They have the world's strongest markets, they provide high-grade jobs and they are the basis for considerable revenues and profits due to the wealth of their peoples. Take the three German states of Bavaria, Baden-Württemberg and North Rhine-Westphalia, for example: they alone have a higher GDP than the four Asian tigers – South Korea, Taiwan, Singapore and Hong Kong – taken together.

Within the European Union, Germany's attraction as a business location has appreciated over the past three years – structurally because of a new drive for economic and social reforms and geographically because the country has become the center of the European Union following EU enlargement in 2004. Today, you could not be more centrally based in Europe than in this continental heartland neighboring nine countries. Germany is the natural linchpin between East and West, North and South and EU expansion has dramatically improved its competitiveness.

Why should foreign direct investment be encouraged, and why is the integration of our economies of both sides of the Atlantic so important? At one time, companies would primarily invest in overseas production and service bases in order to seize fresh market opportunities. But now that all types of hedging strategies are vital for healthy balance sheets, foreign direct investment has become a key factor in guarding a company against currency fluctuations and regulatory restrictions. This effect has become known as "natural hedging."

Related party trade – that is, trade between parent and affiliate companies – offers an explanation as to why U.S. imports from Europe remained strong and continued to grow in 2003 despite a 20 percent appreciation of the euro against the dollar. And that also partly explains why Germany remained the world's leading export nation even in 2004, despite a very strong euro. Had we not invested in each other's economies, things would look much darker today. Indeed, an integrated economy is less vulnerable.

The M&A business and private equity serve as a powerful engine in this integration process. Acting on behalf of their private and institutional investors, M&A consultancy firms are on the constant lookout for business enterprises to buy and develop further.

We at "Invest in Germany" – the agency I represent as Federal German Commissioner for Foreign Investment – recognize three main factors that attract foreign direct investment:

- 1. The chance to open up new markets and develop existing ones
- 2. A low-priced production base, which is a very popular reason for going abroad
- 3. Natural hedging.

I mentioned natural hedging already. So, let's concentrate on points one and two.

Access to markets is a classic reason for going abroad. Even the very best intentions will get you nowhere if you are not familiar with your market and its people. Being on the spot enables you to analyze situations quickly, take decisions that are geared to local conditions and traditions and deliver your goods or services fast. The famous saying "When in Rome, do as the Romans do" is as valid as ever. It pays to have the know-how.

Germany is the leading economy in Europe. Eighty-two million people live there – that is 22 percent of the EU population. They create 23 percent of the Union's gross domestic product. So anybody who wants to win a market share in Europe can't get around having a presence in Germany.

The expansion on May 1 from the so-called EU 15 to EU 25 countries has created a single open market of 454 million consumers. Germany enjoys a prime geographical situation in this enlarged union. Goods can be delivered to and carried from Prague, Warsaw and the Baltic states just as easily as – say – to and from Amsterdam, Brussels, Copenhagen, Paris or Vienna. Distances are short and air services, in particular, are frequent and quick, with flying times usually less than an hour-and-a-half. Germany's hub airports in Frankfurt and Munich are the most central of their kind in Europe.

Also, there is an excellent network of fast highways and railroads radiating from Germany. That is an advantage no major company can afford to ignore when seeking a location for its regional activities in Europe. Another interesting point: Central Europe has become the most important trading partner of the EU during the past ten years – more important than Asia or Latin America. Germany, Austria and Italy account for more than three-quarters of total trade flows between eastern and western Europe. It is lucrative to tap into these trade flows. All these features are compelling reasons for

investing in or buying companies in Germany. FDI in both directions keeps the continents of America and Europe alert and competitive and ensures that innovation finds its way to the markets quickly.

My second point is **the cost of labor.** A low-priced production base is not the first thing that comes to mind when you think of Germany. Because people automatically relate low cost to cheap labor.

Cheap labor certainly is not what attracts U.S. companies to Germany first and foremost. In fact, the political debate in Germany has permanently been revolving round the question as to how to cut labor costs in order to secure global competitiveness. So there must be other, more compelling reasons for investing in Germany.

When you take a more comprehensive look, a low-priced production base turns out to be a rather mixed basket of comparatively low wages, highly qualified local staff and management, and stable labor relations.

Here Germany can score on the salient points. Each spring the American Chamber of Commerce in Germany publishes a survey of their 100 biggest member firms. They continue to regard Germany as an ideal location for U.S. companies, specifically for headquarters serving the European area.

AmCham members cite the quality of highly trained labor as the second strongest reason for operating in Germany after the strength of the market. It is the excellent productivity and the flexibility of the workforce that they are so happy with. Skilled labor – the famous German *Facharbeiter* – is very versatile. He can fix things for you, an AmCham member told me, for which you would require another specialist in an American company if you want to avoid a borderline dispute.

I will not gloss over the fact that the recent expansion of the European Union has been used by industry to shift some of their production eastwards where labor is extremely cheap. This has put pressure on management and unions in Germany to adapt to a new environment. And, indeed, Germany has made astonishing progress in this respect.

Wage freezes, a partial return to the 40-hour week, lower entry wages and shop contracts that allow more flexible working in line with market demand – all this is happening and reflects the new realities. Codetermination at the shop-floor level works. You will find readiness on the part of local shop committees to reach tailor-made agreements. That would have been unheard-of only a couple of years ago. Germany is definitely moving with the times! Executives of big U.S. companies in Germany with whom I have spoken are impressed by the flexibility of their labor force and shop committees.

R&D is another quality factor in Germany's favor. Sixty per cent of U.S. corporate research and development conducted outside the United States is based in Europe. The UK and Germany are the biggest labs for U.S. companies abroad. Germans continue to register the highest number of patents in Europe. Companies like Ford and BP have moved their European research centers from the UK to Germany for that very reason. So, the comparative advantage of a location is based on a number of different factors. And Germany has strong plus points speaking in its favor.

There is one other, very recent argument for giving preference to Germany over other business locations in Europe – and that is money. Germany's comparative advantages in the euro zone have grown remarkably. A survey published by the British magazine "The Economist" revealed that the euro area may have a single currency, but it still has many different real exchange rates. That is stunning news.

When the single currency was born, Germany's unit labor costs were the highest in the euro area. But since 1999 they have fallen by ten percent relative to the average. In contrast, relative unit labor costs have risen by nine percent in Italy, Spain and the Netherlands. Economists at ABN Amro were quoted as estimating that Germany's labor costs are now lower than Italy's. Ireland and Portugal have also lost competitiveness. In the past five years, Germany has boasted faster growth in labor productivity than the euro area average.

The same analysts conclude that Germany's real trade-weighted effective exchange rate against the dollar has risen only 4 percent since early 2002. By the same token, France's real exchange rate has gone up by 9 percent and that of Italy and Ireland by 17 percent. Germany also has the lowest inflation rate in the euro zone. The economists argue that Germany's modest rise in the real trade-weighted exchange rate explains the country's success as the world's leading exporter – a result of a remarkable improvement in the terms of trade.

Also, Goldman Sachs, the investment bankers, stated in a report that Germany's competitiveness has improved dramatically and was now on par with the rest of the Union. Germany, indeed, is good for many a pleasant surprise!

A final word on how M&A and private equity are being viewed in my country. In contrast to a more skeptical view several years ago, the private equity business has gained a lot of respect in recent years. This picture has hardly been marred by political criticism recently.

Private equity is seen by trade and industry as an alternative to classical forms of financing a company. Particularly small and medium-sized companies – the backbone of the German economy – are confronted with two major challenges: They find themselves facing global competitive pressure and want to expand. But the new Basle Two credit regulations make it difficult for them to obtain the necessary credit facilities.

Most of these small and medium-sized businesses suffer from a lack of capital resources. While it is common for U.S., French or Dutch companies to have an equity ratio of 30 per cent, they only possess seven-and-a-half percent on average. As a result, only a few can afford to invest in new products or technologies, although they are highly innovative as companies. There are dormant potentials which only a few of them can realize. Also, many of those firms that were established in the fifties and sixties, when Germany was recovering from World War II, are now in need of a successor to their present owners. Private equity can help to solve problems of succession.

Major German groups are interested in PE because the pressure is on for them to concentrate on core activities. Many diversified groups are thinking of spinning off activities that do not fit the portfolio anymore, even though they are profitable. So, at a

time when the whole country is debating reform and adjusting to new global challenges, Germany has a lot of advantages to offer U.S. investors who are thinking of buying into local businesses.

By doing so, they will gain. They will obtain a footing in the EU or may help develop companies in their expansion drive. Whatever their objective may be, their activities will enhance transatlantic economic integration, produce results and secure jobs. A number of companies that are well known to German consumers have already become successful with the help of private equity: Gardena, the garden utensils manufacturer, for instance, or the Nordsee restaurant chain, the ATU auto repair chain, and Rodenstock glasses, to mention just a few.

Generally, the public is hardly aware of this fact. The lack of publicity is regrettable, but it could also be seen as a sign of normality in the transatlantic economy. And there are other, more spectacular cases, like that of the chemical giant Celanese or the purchase of Linde refrigeration engineering by United Technologies. A great number of M&A and private equity deals in Germany are real success stories. They bode well for a deepening of transatlantic economic relations.

Foreign direct investment in both directions will strengthen our respective position as global players. Let's always remain aware of that.

2.2 U.S.-German Relations: Will the Ties that Bind Grow Stronger or Weaker?

Daniel S. Hamilton and Joseph P. Quinlan

The economic interests and future prosperity of the United States and Germany have never been as interdependent as they are today. U.S.-German commercial interests are bound together by foreign investment – the deepest form of economic integration. The war in Iraq, and subsequent tensions between Washington and Berlin, served as a useful wake up call to policy makers on both sides of the Atlantic to the importance of the U.S.-German relationship. Now, however, the challenge for both parties is to renew their commitment to the relationship and forge ahead with new policies that will strengthen one of the most important bilateral relationships in the world.

With the end of the Cold War, and the receding threat of the Soviet Union, many parties on both sides of the Atlantic came to the conclusion that the United States and Europe were no longer strategic partners in need, that they were free to disengage from each other and free to pursue divergent interests. This view gained even more

credence in the post-September 11th environment, when U.S. foreign policy shifted towards more pre-emptive strategies and unilateral initiatives, culminating in the U.S.-led war in Iraq.

The bitter division over the war in Iraq shook the transatlantic foundation to its core, notably the U.S.-German alliance. U.S. relations with one of its longest-standing European allies plunged to perhaps its lowest level since the creation of the Federal Republic of Germany. The war in Iraq fanned anti-Americanism across Germany, which, in turn, only served to stoke anti-European and German sentiment in the United States. Public opinion on both sides of the ocean turned decisively sour in 2003 and 2004. Against this backdrop, many observers began to think the unthinkable – the collapse of the transatlantic alliance in general, and downgrading of the U.S.-German partnership in particular, following decades of cooperation and prosperity.

Fortunately, the fashionable argument that the United States and Germany no longer need each other has begun to wane. In its place a new realism has emerged, one anchored in the belief that despite differences in other fields (security, climate change, Middle East policies), the economic interests and future prosperity of the United States and Germany have never been as interdependent and intertwined as they are today. U.S.-German commercial interests are bound together by foreign investment – the deepest form of economic integration – as opposed to trade – a well known yet rather shallow form of integration.

Interestingly, despite all the media hype about the emergence of China, the promise of India and the allure of the emerging markets, U.S.-German economic ties only grew stronger over the first half of this decade. However, the past is hardly prologue. Even a bilateral relationship rooted in foreign direct investment needs constant nourishment and reinforcing initiatives that deepen and strengthen the relationship. Today, U.S.-German linkages are among the strongest in the world. The question is whether or not the same will be true by the end of this decade and beyond.

U.S.-German commercial relations – the long view

In the aftermath of World War II, U.S.-German commercial relations were relatively shallow and underdeveloped. Given strong growth at home, U.S. firms were not aggressive foreign investors at the time, and what investment did take place abroad was directed at natural resources. Accordingly, mining and oil exploration were the principal sectors driving U.S. investment outflows; resource-rich Canada and Latin America accounted for roughly 70% of America's overseas investment position at the outset of the Cold War.

Europe's share of U.S. foreign investment was just 15% in 1950, with the United Kingdom accounting for nearly half of the European total. In the intervening decades, however, the motivations for investing overseas among U.S. firms shifted, as did the geographic composition of U.S. foreign investment. Access to markets, rather than raw materials, became the overriding determinant of U.S. firms' overseas expansion. As a result, Europe, which had lagged Canada and Latin America in the early 1950s, emerged as the most favored destination of U.S. firms in the ensuing decades, a ranking the region has never relinquished.

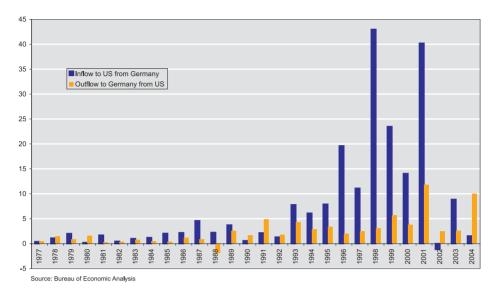


Figure 2.1 The Long View: U.S.-German FDI Flows (in US \$ billions)

As Europe rebuilt and recovered from the ravages of war in the late 1950s, and moved toward the creation of a common market, U.S. firms were quick to seize the opportunities across the Atlantic. While U.S. foreign investment outflows to Europe averaged just \$400 million (in nominal terms) annually in the 1950s, the annual average more than quadrupled in the 1960s, jumping to \$1.7 billion. That represented nearly 40% of the U.S. global total, up from a 20% share in the 1950s. In the 1970s, Europe's share jumped to 47% of total U.S. FDI; in the 1980s, Europe easily accounted for more than half of total U.S. investment outflows.

U.S. foreign investment to Germany mirrored these general trends: over the 1950s, Germany attracted just \$600 million of U.S. investment on a cumulative basis. Over the 1960s, as a European common market began to coalesce, and as Germany emerged as one of the most powerful economies in Europe and the world, U.S. foreign direct investment to Germany rose sharply. Indeed, over the 1960s, U.S. firms invested \$3.4 billion on a cumulative basis in Germany, a near six-fold increase from the prior decade. In the 1970s, U.S. firms invested another \$9.3 billion, more than two-and-ahalf times the level of the prior decade. By the end of the 1970s, U.S. firms enjoyed a commanding position in Germany; U.S.-German investment flows were unbalanced by the end of the 1970s, with America's investment stakes in Germany, on a historic cost basis, roughly double (\$15.4 billion) that of Germany's investment position in the United States (\$7.6 billion).

The investment gap between the U.S. and Germany reflected the global economic conditions of the post-war era. Spared the destruction of war in their home markets, U.S. firms had the advantage of a healthy economy and the financial means to expand overseas. By contrast, the 1950s and 1960s were a period of rebuilding and reconstruction for most German companies. Before expanding abroad, many firms first had to resurrect their own facilities at home and reestablish their domestic market posi-

Table 2.1 FDI inflows

US foreign direct investment inflows from Germany (in US \$ billions)

	US Inflows from Germany	US Inflows from Europe	Inflows from Germany as a % of Flow from Europe
1962-1969	0,5	3,3	14,9%
1970-1979	4,2	27,7	15,3%
1980-1989	19,4	216,3	9,0%
1990-1999	123,1	659,1	18,7%
2000-2004	63,5	502,4	12,6%

US foreign direct investment outflows to Germany (in US \$ billions)

	US Outflows to Germany	US Outflows to Europe	Outflows to Germany as a % of Flow to Europe
1950-1959	0,6	4,2	13,3%
1960-1969	3,4	16,7	20,2%
1970-1979	9,3	57,9	16,1%
1980-1989	6,5	94,7	6,9%
1990-1999	31,8	465,3	6,8%
2000-2004	30,6	401,6	7,6%

Source: Bureau of Economic Analysis

tions. With the formation of the European Economic Community, German firms were initially venturing into neighboring nations rather than further abroad.

Over the 1970s, however, many German firms went on the offensive and made it a strategic priority to counteract corporate America's growing presence in Germany. Accordingly, after investing \$4.2 billion in the United States over the 1970-79 time frame – up sharply from roughly \$500 million over the prior decade – German firms dramatically increased their market presence in the United States over the 1980s. In fact, German firms invested nearly three times as much capital in the U.S. over the 1980s (\$19.4 billion) as U.S. firms invested in Germany (\$6.5 billion).

Over the 1980s, U.S. foreign direct investment overseas dropped sharply in part on account of the U.S. recession. Meanwhile, U.S. capital inflows from Germany and other nations soared, bolstered by a number of variables including favorable market attributes in the U.S., a wave of corporate restructuring that increased the number of domestic candidates for sale, and attractive incentives from many U.S. states and municipal governments. Shifts in U.S. tax laws related to accelerated depreciation schedules also lured record amounts of foreign investment. So did the dramatic depre-

ciation of the U.S. dollar over the second half of the 1980s, with the weak dollar not only reducing the foreign currency cost of acquiring U.S. companies. The weak dollar also caused the dollar value of wages in other nations, notably Germany, to rise relative to U.S. wages, making it more difficult for German firms to export goods to the U.S. This made it all the more attractive for German firms to invest directly in the United States. And they did – by 1989, German investment in the United States, on a historic cost basis, was nearly 20% larger than corporate America's position in Germany, \$28.4 billion versus \$23.7 billion.

The 1990s and beyond – the bonds grow stronger, not weaker

When the economic history of the late 20th century is written, globalization will undoubtedly be invoked as the defining economic precept of the time. Like the initial period of globalization in the second half of the 19th century, the 1990s and beyond have been a time of robust and unfettered global capital flows, market liberalization measures and buoyant global trade. Global trade expanded by an average annual rate of 6.1% (in volume) over the 1990s, roughly double the rate of world GDP growth, and by a similar annual rate over the first half of this decade.

Global foreign direct investment (FDI) flows have expanded at an even faster pace, boosting the level of global inward FDI stock from \$1.9 trillion in 1990, to \$6.3 trillion in 2000, and to an estimated \$8.2 trillion in 2003. At the start of the decade, there were over 60,000 transnationals with more than 820,000 affiliate spread around the world. From this global production base, the gross product of foreign affiliates totaled \$3.7 trillion in 2003, with foreign affiliates employing over 54 million workers. Sales of foreign affiliates topped \$17.6 trillion in 2003, versus \$5.7 trillion in 1990, and were well above global exports of goods and services in 2003 – \$9.2 billion.

Globalization's return has opened the untapped markets of central Europe, Latin America, and the Indian subcontinent. Free market reform has been the mantra of Poland, Brazil, India and a host of emerging markets for more than a decade, with these new markets providing new consumers, new resources to leverage and new opportunities to grow sales and revenues for the world's leading multinationals.

Yet despite all the hype associated with globalization, and notwithstanding all the excitement surrounding the emerging markets, notably China, one of the defining features of the global economic landscape over the past decade has been the increasing integration and cohesion of the transatlantic economy in general, and U.S.-German ties in particular.

American companies invested more capital overseas in the 1990s – in excess of \$750 billion – than in the prior four decades combined. But the surge in U.S. foreign investment did not flow to the new and untapped markets of the developing nations. Rather, the majority of U.S. foreign direct investment in the 1990s, and the first half of this decade, has been directed at Europe. Of the top ten destinations of U.S. investments in the 1990s, five countries in Europe ranked in the top ten – the United Kingdom (ranked No. 1), the Netherlands (3), Switzerland (6), Germany (7) and France (8). Rounding out the top ten were Canada (2), Brazil (4), Mexico (5), Australia (9) and Japan (10).

In the first half of this decade (2000-04), six countries in Europe were among the top ten destinations of U.S. foreign investment. The United Kingdom, ranked first again, followed by Canada (2), the Netherlands (3), Switzerland (4), Mexico (5), Ireland (6), Germany (7), Singapore (8), Japan (9) and Italy (10). U.S. investment stakes in Europe have expanded sharply this decade, with Europe attracting nearly 56% of total U.S. foreign direct investment in the first half of the decade. The bias towards Europe runs counter to all the hype and angst associated with U.S. outsourcing to such low-cost locales like China and India, and the common belief that it is the low-cost destinations of East Asia that has attracted the bulk of U.S. investment.

To be sure, U.S. foreign direct investment to China and India has jumped dramatically this decade, notably U.S. investment to China. Total U.S. investment to China, for instance, surged to nearly \$11 billion (on a cumulative basis) in the first half of this decade, nearly double U.S. investment flows to China of \$5.9 billion over the second half of the 1990s. That represents a dramatic rise, although on comparative basis, U.S. investment in Germany over the same period (\$30.6 billion) was nearly three times larger. By the same token, while U.S. foreign investment to India doubled in the first half of this decade, from just \$1 billion over the 1995-99 period to \$2.5 billion, U.S. investment in Germany was 12 times that level. In 2004, U.S. investment to Germany totaled nearly \$10 billion, versus U.S. investment of \$4.2 billion in China and just \$1.2 billion in India.

Why such a disparity between U.S. investment in slow-growth Germany versus turbocharged China and emergent India? At the end of the day, the motivations of multinationals to invest overseas are less about cheap labor and more about access to wealthy markets, to skilled labor and to the innovative capabilities of the host nation. The premium placed on these assets goes a long way in explaining why the U.S. and Germany are each other's most important foreign investors.

In addition, the size and the wealth of the U.S. economy has long been a key attraction for German firms, fueling a host of mega-acquisitions over the past decade. Chief among them were the Daimler-Chrysler deal and Deutsche Bank's purchase of Bankers Trust; the two deals helped to boost German inflows to a record \$43 billion in 1998, equivalent to Germany's total investment in the United States over the 1980-94 period. German investment slipped to \$23.5 in 1999, although the country still ranked second largest of foreign investors in the U.S. over the 1990s. Over the first half of this decade, FDI from Germany accounted for 9.4% of the U.S. total, making Germany the sixth largest investor in the United States.

Strong economic growth in the U.S. has been one propellant of rising capital inflows from Germany, with many German firms mindful of the fact that any truly global strategy dictates a presence in the U.S. This prompted both BMW and Mercedes-Benz to set up shop in the U.S. in the mid-1990s, bringing along many German suppliers as well. More recently, RWE, Henkel and Deutsche Post have all made significant acquisitions in the United States.

Other so-called push factors – created by local market and business conditions – have also been at work in promoting outward flows from Germany. These include high German wage costs, stifling corporate taxes, and inflexible employment practices, a lethal mix that has pushed many German firms abroad. The government has addressed

some of these issues over the past few years, although change thus far has not be deep or radical enough to structurally change Gemany's low-growth-high unemployment environment.

Yet these issues aside, Germany remains an attractive market to U.S. firms. The allure of Germany lies with the nation's highly skilled labor force, research and development capabilities and first class infrastructure. The specialization and innovative capabilities of many small and medium-sized firms in Germany have also been notably attractive to U.S., particularly private equity groups. The latter, despite growing hostility in Germany, have been among the most active foreign investors in Germany lately, fueling greater cross-border M&A deals in Germany. Indeed, in the first half of 2005, Germany was among the most popular locations in the world for global M&A deals, with deals totaling \$73 billion in the first half of this year, a 110% rise from the same period a year ago. Many of these deals have been initiated by U.S. firms.

The bottom line is that U.S. and German firms are stilled attracted to each other, and attracted to each other's home market, helping to sustain robust foreign direct investment flows in the first half of this decade – despite the transatlantic ill produced by the U.S.-led war in Iraq. In fact, over 2003 and 2004, German firms invested \$10.4 billion in the United States, versus disinvestment of \$1.1 billion in 2002. The latter was a result of the U.S. recession, which reduced affiliate profits and subdued new equity capital inflows from Germany. Over the same two-year period, U.S. firms sank \$12.6 billion into Germany, up sharply from the \$2.4 billion invested in 2002. In the end, while the politicians on both sides of the Atlantic were bickering over the war, is was largely "business as usual" regarding U.S.-German investment flows.

The eight ties that bind

The primacy of foreign direct investment in driving U.S.-German commerce is reflected in the robust infrastructure that links the United States and Germany. This

Table 2.2 U.S.-German linkages¹

The Ties That Bind (US \$ Billions, 2002)			
	U.S. Foreign Affiliates in Germany	German Affiliates in the U.S.	
Gross Product of Affiliates	60,7	57,0	
Overseas Assets of Foreign Affiliates	311,8	534,1	
Affiliate Employment (thousands)	615,6	676,4	
Manufacturing (thousands employees)	386,0	389,0	
R&D of Affiliates	3,6	5,6	
Foreign Affiliate Sales	205,7	290,4	
Foreign Affiliate Income (Full Year 2004)	6,3	7,1	

Source: Bureau of Economic Analysis

¹ Data from majority-owned foreign affiliates

commercial infrastructure has been under construction for over a half-century, but remains largely invisible to policy makers on both sides of the ocean. The following eight indices offer a clearer picture of the deep integrating force that makes the U.S.-German commercial link among the strongest in the world (Table 2.2).

Gross product of foreign affiliates

The total output of U.S. foreign affiliates in Germany (\$60.7 billion in 2002) and of German affiliates in the United States (\$57 billion) is rather sizable. Both figures, for instance, are equal or greater than the GDP of Bulgaria, Algeria, Peru, Morocco, New Zealand and many other nations. In Germany, U.S. foreign affiliates accounted for 3.1% of total German output in 2002, up from 2.7% in 1994. In the United States, the output of German affiliates has increased sharply over the past few years on account of rising German FDI in the U.S. In 1997, for instance, German-owned affiliate output in the U.S. totaled \$37 billion, a figure that increased to \$57 billion in 2002. Only British and Japanese affiliates in the U.S. produced more than German affiliates in 2002.

Overseas assets of foreign affiliates

America's overseas commercial presence, as measured by foreign assets of U.S. companies, is substantial, totaling over \$6 trillion in 2002. The bulk of these assets, or 61%, are located in Europe, with the largest share in the United Kingdom (\$1.5 trillion), the Netherlands (\$508 billion) and Germany (\$312 billion). While lagging the U.K. and the Netherlands, U.S. assets in Germany were greater than total U.S. assets in South America in 2002 (\$117.8 billion), as well as many other developing regions, including Africa (\$62 billion), the Middle East (\$29 billion), Eastern Europe (\$52 billion), and OPEC (\$77.2 billion).

Total German assets in the U.S. - \$534 billion – are among the largest of all foreign investors in the United States. Only the United Kingdom and Switzerland have a larger asset base in the U.S. than Germany. It is interesting to note that German assets in the U.S. are over 70% larger than U.S. assets in Germany, a factor related to the surge in German FDI in the United States over the past decade.

Affiliate employment

Thousands of workers in the United States and Germany are employed by foreign affiliates from each nation. Indeed, some 676,000 American workers were employed directly by German affiliates in 2002 – among the largest numbers of workers employed by foreign investors in the U.S. Only British firms employed more American workers in 2002. Roughly half of these U.S. workers were employed in manufacturing jobs, and concentrated in the Great Lakes region, as well as the southeast, where German affiliates are predominantly located. Although hard to quantify, many more American jobs are tied to U.S. exports to Germany.

In Germany, U.S. affiliates employed roughly 616,000 German workers in 2002, with nearly two-thirds of the total (386,000) consisting of manufacturing workers. So large was the manufacturing workforce of U.S. affiliates in Germany in 2002, that the number of manufacturing workers on the payrolls of U.S. foreign affiliates in Germany was 80% greater than the number of manufacturing workers employed by U.S.

affiliates in China in the same year. That said, however, U.S. foreign affiliate manufacturing employment in Germany is in decline, falling nearly 15% between 1990 and 2002. The job cuts reflect the migration of jobs to central Europe, where manufacturing employment of U.S. affiliates has soared over the past decade. Indeed, between 1994 and 2002, manufacturing employment of U.S. affiliates in the region rose from 63,000 workers to more than 190,000. The cut in manufacturing jobs in such high-cost places like Germany, however, has been offset rising employment among U.S service affiliates.

Research and development of affiliates

While R&D expenditures remain biased towards the home country, foreign affiliate R&D has become more prominent over the past decade as firms seek to share the costs of development, spread the risks and tap into the intellectual talent of other nations. Alliances, cross-licensing of intellectual property, and mergers and acquisitions – these and other forms of cooperation have become staples of the U.S.-German partnership.

Accordingly, of the \$21.5 billion in R&D expenditures of U.S. foreign affiliates in 2002, roughly two-thirds was in the Europe, with the United Kingdom (\$3.7 billion) and Germany (\$3.6 billion) leading the way. Germany alone accounted for 17% of total global R&D of U.S. foreign affiliates in 2002, a reflection of Germany's skilled, innovative workforce and corporate America's penchant for leveraging skilled assets any place in the world. Conversely, America's highly skilled labor force, entrepreneurial culture and first-class universities have been key drivers attracting R&D capital from German firms. Indeed, in 2002, German affiliates in the United States invested more R&D capital (\$5.7 billion) than another other foreign investor in the United States. German R&D expenditures in the U.S. accounted for 27% of the European total in the U.S. and just over one-fifth of the global total.

Intra-firm trade of foreign affiliates

Foreign affiliate sales are the primary means by which goods and services are delivered across the Atlantic. Trade is secondary, although the two modes of delivery should not be viewed independently of each other. They are more compliments than substitutes, since foreign investment and affiliate sales increasingly drive trade flows. Indeed, a substantial share of U.S.-German trade is considered intra-firm trade or related party trade, which is cross border trade that stays within the ambit of the company. It's BMW of Germany sending parts and components to BMW of South Carolina, for instance. Reflecting the tight linkages between German parent companies and their U.S. affiliates, roughly 62% of U.S. imports from Germany consisted of related party trade in 2004. Meanwhile, 32% of U.S. exports to Germany in 2004 represented related party trade.

Given the above, only after recognizing that almost two-thirds of U.S. imports from Germany are considered related party trade, can one begin to understand why U.S. imports from Germany have remained so strong over the past few years despite the sizable appreciation of the euro against the U.S. dollar since the beginning of 2002. Following such a large shift in prices or exchange rates, Economics 101 would have

predicted or suggested a rebalancing of bi-lateral trade. Theory would have expected U.S. export growth to outstrip U.S. import growth, leading to an improvement in the overall trade balance. To the contrary, however, America's trade deficit with Germany actually widened in 2003, to \$45 billion, and again last year, to \$52 billion.

America's widening trade gap with Germany has confused many on both sides of the Atlantic. However, missing from most analysis is the simple fact that an unusually large percentage of U.S. imports from Germany are considered related party trade, and that parent-affiliate trade is less responsive to shifts in prices or exchange rates and more attuned to domestic demand. Accordingly, while a strong euro, in theory at least, would be associated with a decline in German competitiveness in the United States, the fact that many German multinationals produce, market and distribute goods on both sides of the ocean gives firms a high degree of immunity to a dramatic shift in exchange rates. Under this structure, trade flows are driven more by demand in the host nation. As such, with the U.S. economy among the most robust in the world, sales of German affiliates have remained strong over the past few years, which in turn, have generated more demand (a.k.a. imports) from the parent company for parts and components irrespective of exchange rate movements.

Foreign affiliate sales

Foreign affiliate sales are the primary means by which U.S. and German firms deliver goods and services to each other's respective markets. In 2002, for instance, U.S. foreign affiliate sales in Germany totaled \$206 billion, well in excess of U.S. exports to Germany the same year, \$42.2 billion. Similarly, German foreign affiliate sales in the United States totaled \$290 billion in 2002 versus U.S. imports from Germany of \$83.6 billion. In other words, foreign affiliate sales tell one story of U.S.-Germany ties, while trade tells another.

Based on U.S. exports, Germany ranked as the sixth largest market in the world for U.S. goods in 2004, well behind other nations like China, Canada, Mexico and the United Kingdom. From this vantage point, it's not hard to make the case that many emerging markets like China and Mexico are more important to U.S. commercial interests than Germany. That's not even half the story, however.

The story changes dramatically when considered foreign affiliates sales. Based on the latter, Germany ranks as one of the most important markets in the world for U.S. companies, with foreign affiliate sales of \$206 billion in 2002 lagging only Canada (\$336 billion) and the United Kingdom (\$372 billion). In that a great deal of foreign affiliate sales in Canada represent exports to the U.S., Germany, for a practical purposes, is the second largest market in the world for U.S. companies. Relative to China, while U.S. exports and foreign affiliate sales to China have soared over the past decade, foreign affiliate sales of \$42 billion in China were just one-fifth of U.S. affiliate sales in Germany in the same year. How important is Germany to corporate America? By the metric of affiliate sales, what U.S. foreign affiliates sold in Germany in 2002 exceeded the combined sales of affiliates in South America, Africa, the Middle East, and eastern Europe.

In the United States, it is a similar story: German affiliate sales in the U.S. in 2002 (\$290 billion) were more than three times greater than U.S. imports from Germany – a