

**TOWERGROUP**  
*The Power of Knowledge*

# Banking Before... and After the Internet

**Diogo Teixeira**  
**President**  
**TowerGroup**

**Compaq's Finance Industry Miniforum**

**Houston, TX November 11, 1999**



LIVERMORE RESEARCH GROUP

"COMPETITIVE INTELLIGENCE THROUGH ACTIVE ACCOUNTS"

# **Did We Get It Right? The Internet in Banking Today**

**Diogo Teixeira  
Livermore Research**

**HP's VI Annual Financial Services Industry Executive Forum**

**Miami, FL July 21, 2005**

# Three Key Questions in 1999

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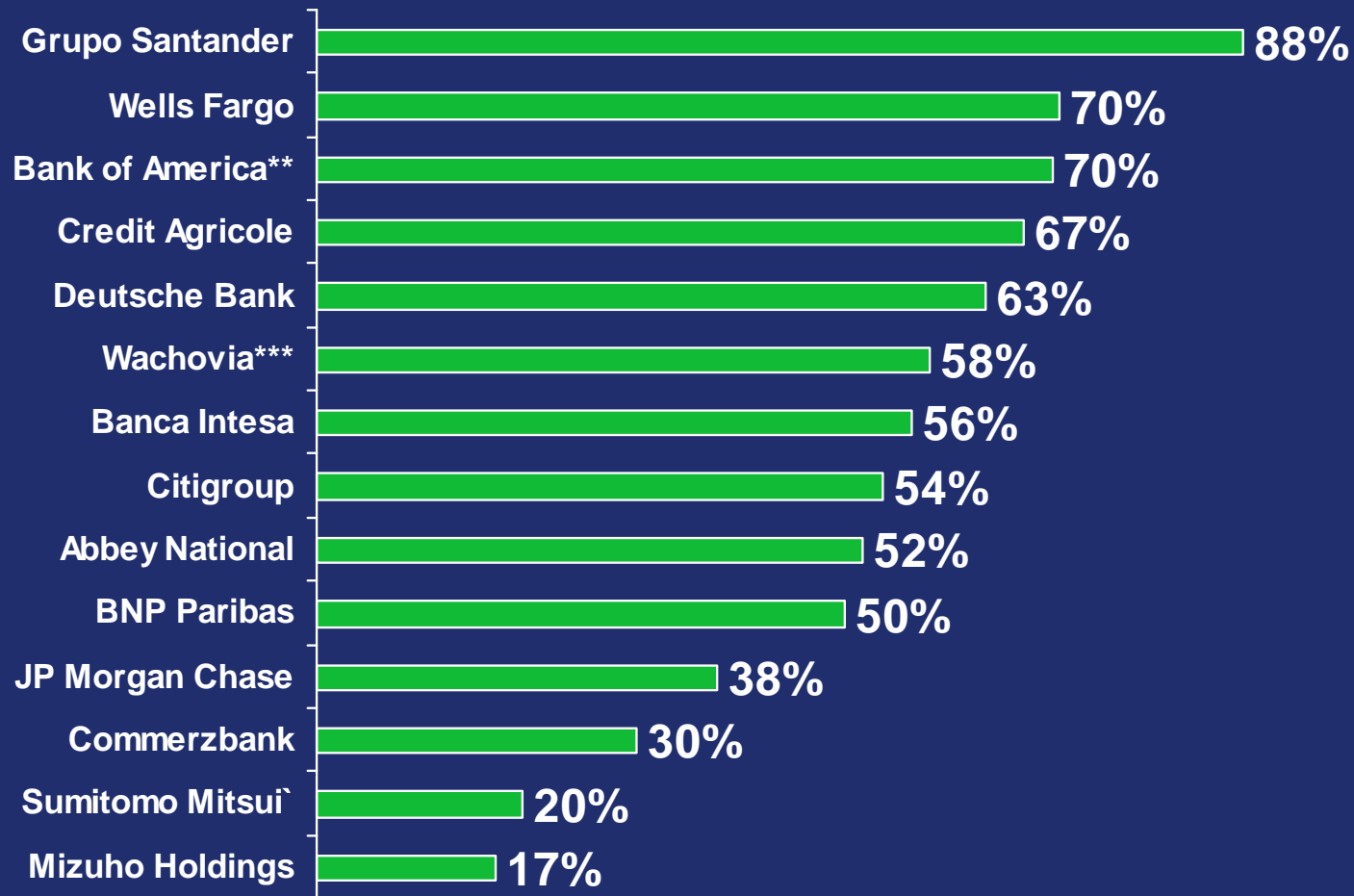
- ◆ **What Impact Will WWW Have on the Industry?**
- ◆ **What are the Barriers?**
- ◆ **Who Will Win (and Lose)?**

# Three Key Answers: 2005

- ◆ **Biggest impact: the retail channel; call center, branch volumes stop growing**
- ◆ **Second biggest: payment systems converting**
  - ✓ Paypal, others via web
  - ✓ EBPP takes off; check & paper decline
- ◆ **Barriers include:**
  - ✓ Conceptual – what should a website do?
  - ✓ Behavioral – consumers must learn to use
  - ✓ Attitudinal – vision failure by banks/vendors
  - ✓ Security – new types of breaches
- ◆ **Winners: heavy investors relative to their size**
- ◆ **Losers: web-only strategies**

# Global FSI Performance is Being Driven by Consumer Banking Activities

## Share of Total Net Income\*



\* YE 2003 for US and Japanese banks; YE 2002 for European banks

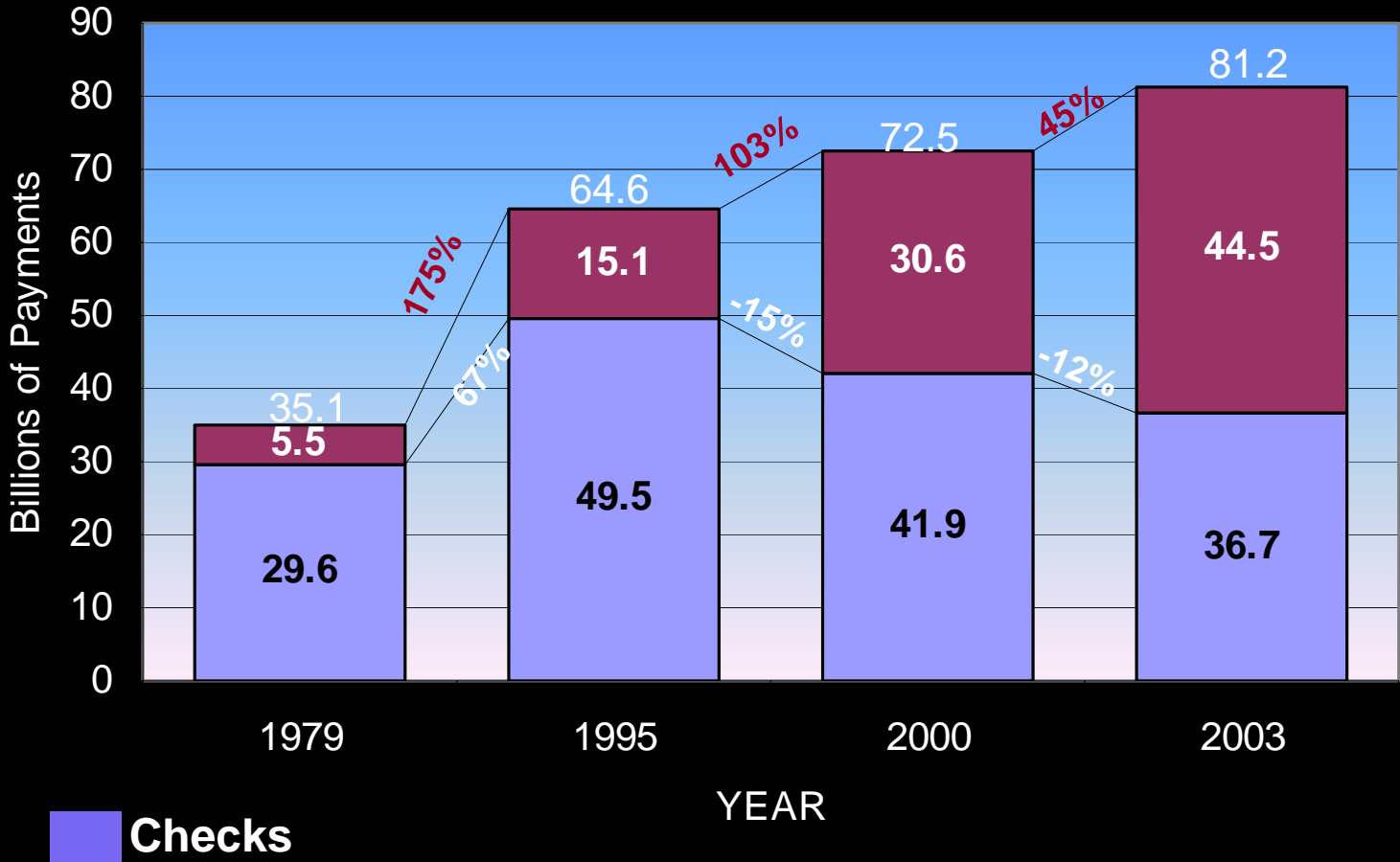
\*\* Consumer and Commercial

\*\*\* General Bank

Sources: EFMA, Company earnings releases, TowerGroup analysis

# Checks Finally Declining

## Growth of Non-cash Payments in the U.S.

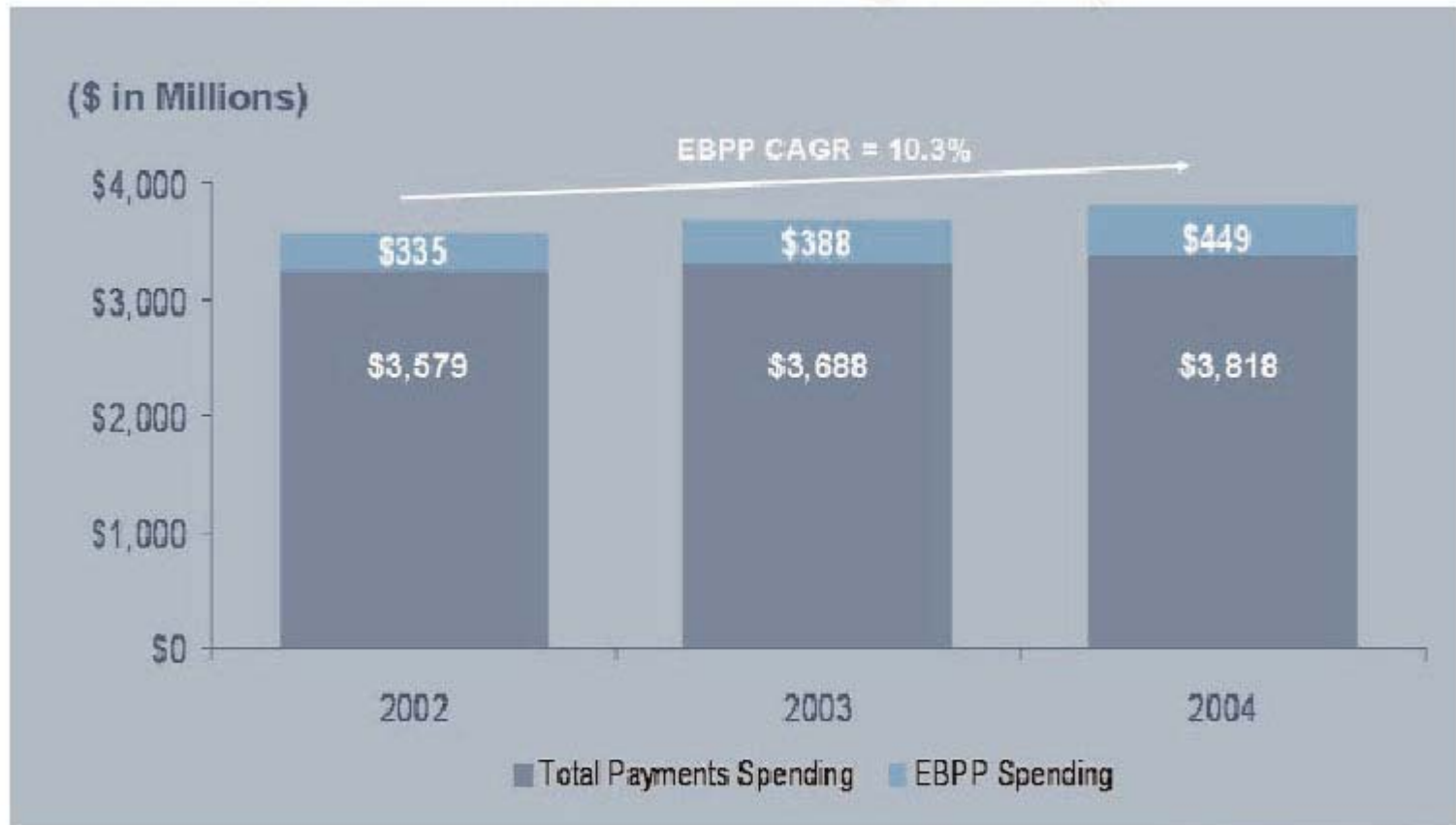


Source: Federal Reserve

Source: Mercator Advisory Group, Inc 2005

# EBPP Growth in the US

## US Bank Technology Spending for Payments Services and Consumer EBPP (2002-04)



Exhibit#: ViewPoint Issue 121-E2

Source: TowerGroup estimates and analysis of 2003 ABA/TowerGroup Survey

### Exhibit 2

### US Bank Technology Spending for Payments Services and Consumer EBPP (2002-04)

Source: TowerGroup estimates and analysis of 2003 ABA/TowerGroup Survey

# Checkfree quasi-monopoly shows influence of web

Transactions  
in millions



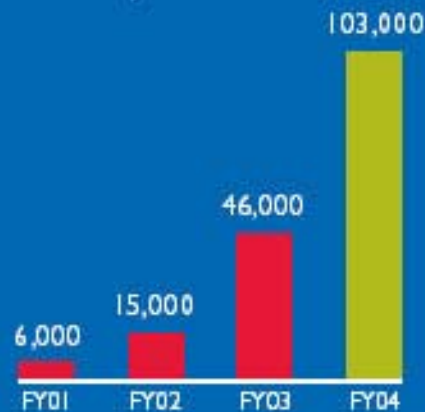
Consistent double-digit growth in transactions processed is a key indicator of e-commerce success.

Electronic Transaction Rate



Payments processed electronically cost less to process and incur fewer interactions with customer care.

e-Bills Distributed  
annual exit run rate, in thousands

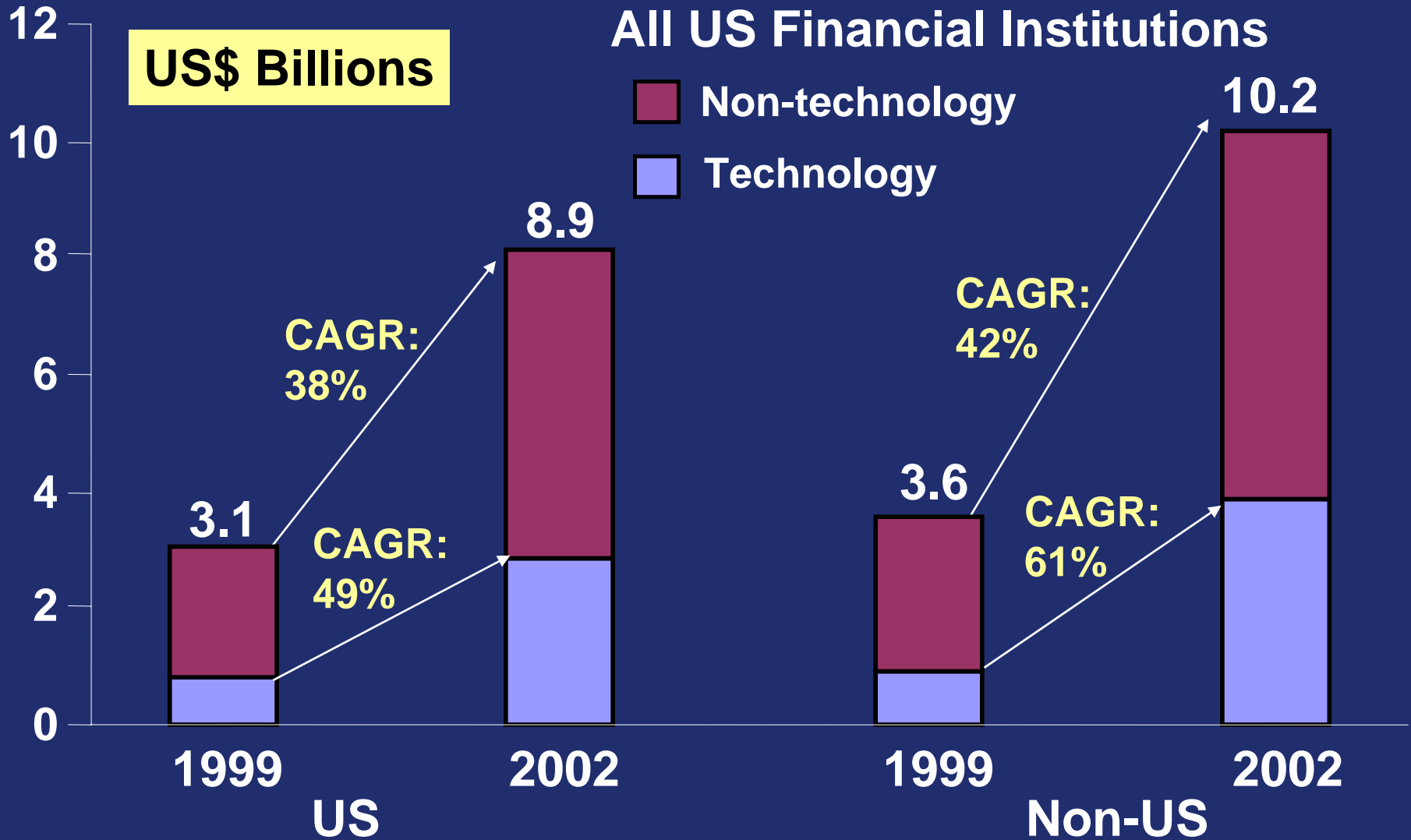


As consumer adoption increases, electronic bill distribution grows exponentially year over year.

Source: Checkfree



# Internet-Related Spending Turning into a Flood

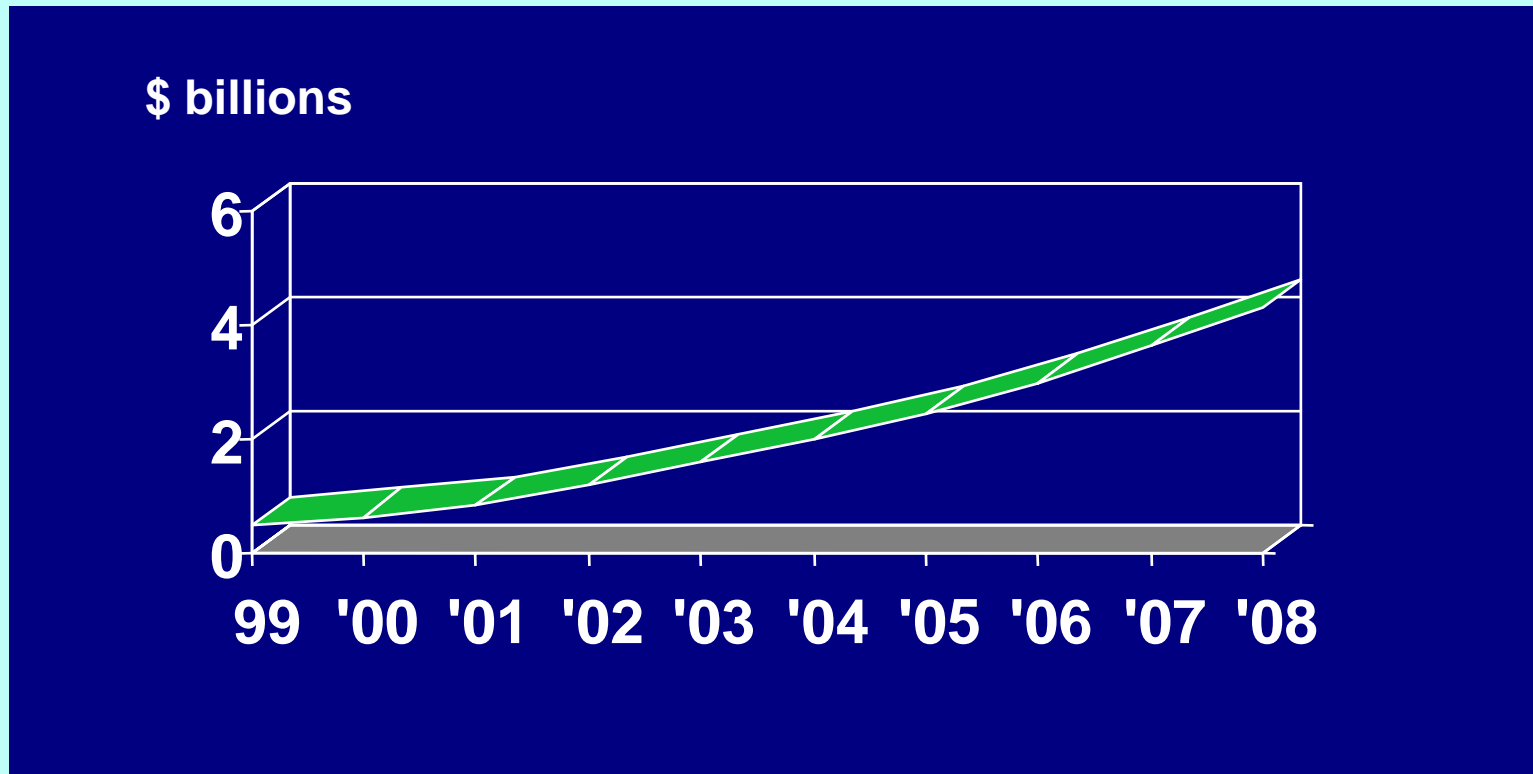


Source: TowerGroup estimates

# The Flood was Tamed – Spending Controlled

- ◆ **Effects of 9/11, Patriot Act slowed investment**
- ◆ **Vision failures: some institutions view web as “adjunct” channel**
- ◆ **Cost declines in generic components**
- ◆ **Limits to how fast changes can be made:**
  - ✓ **Legacy system constraints**
  - ✓ **Operational processes change slowly**
  - ✓ **Fear of consumer self-service**
  - ✓ **Fraud control efforts**

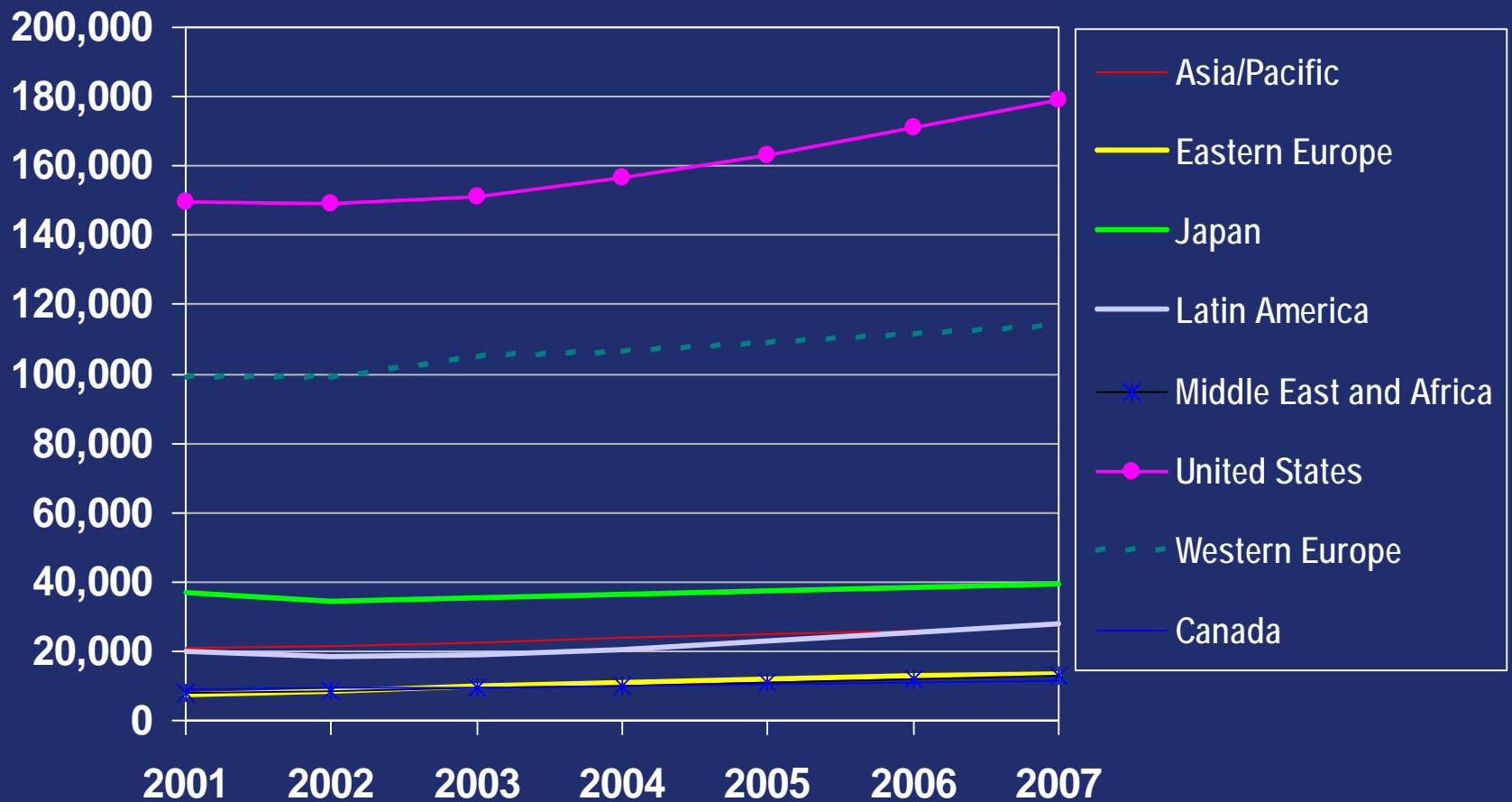
# US Banks – IT Spending Related to Internet



Note: Estimates open to debate; no sharp line divides spending

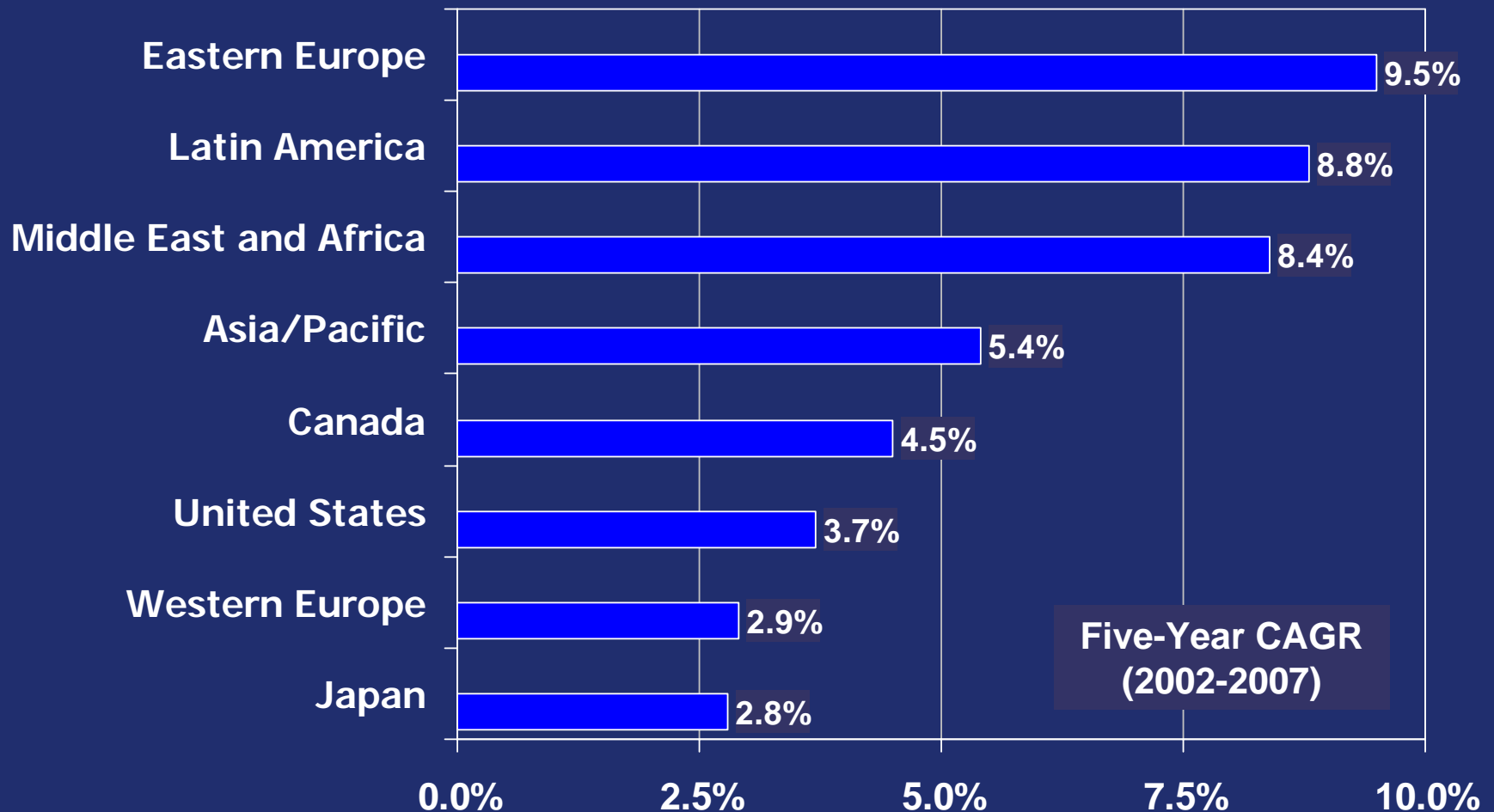
# Financial Services: IT Spending Forecast by Region

Millions of Dollars



Source: Gartner

# Financial Services: IT Spending Growth by Region

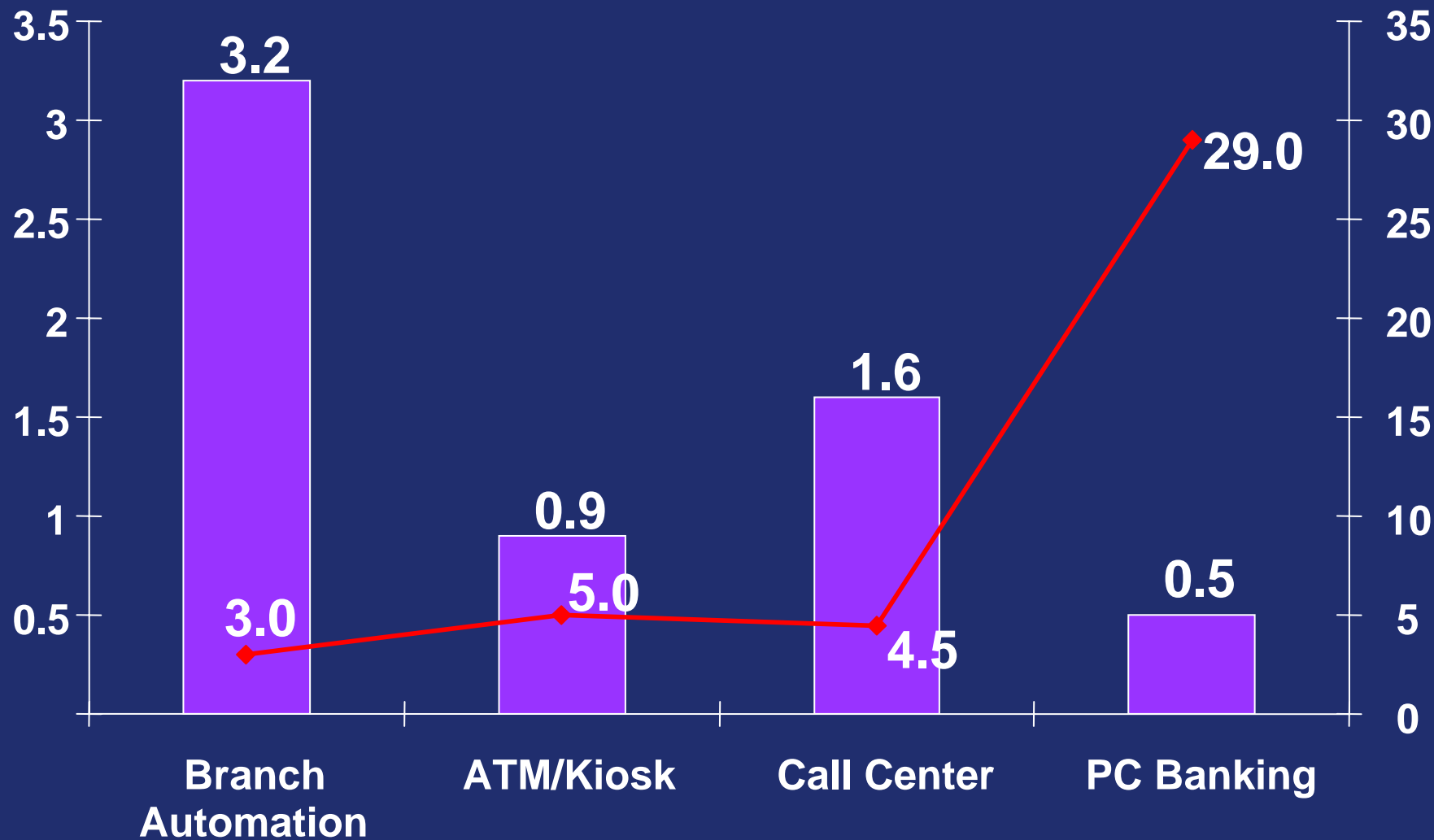


Source: Gartner

# US Bank IT Spending on Retail Service Delivery

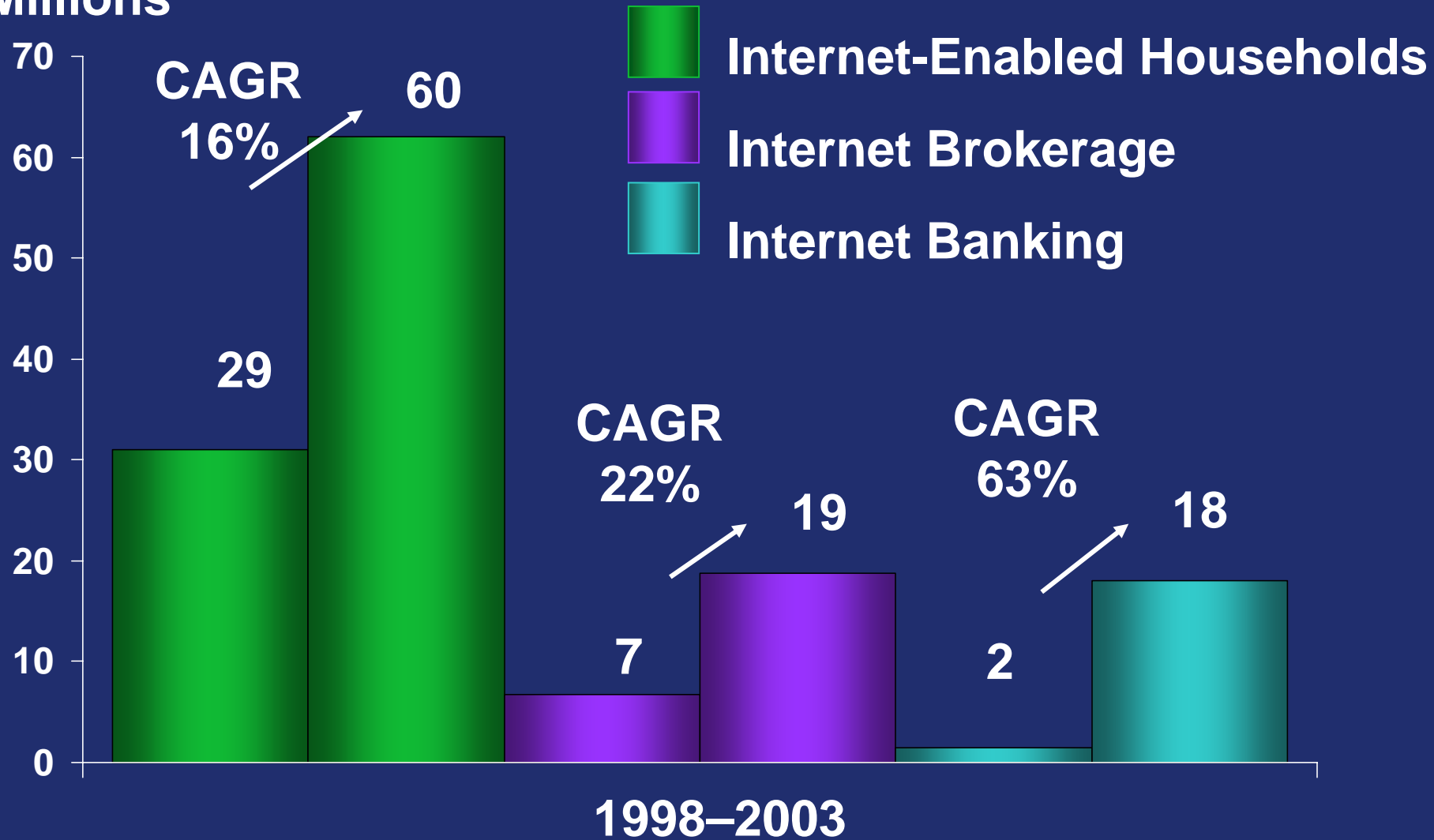
1999 IT Spending (US\$ Billions)

CAGR (%)



# Enablement Will Drive Banking and Brokerage Adoption

Millions



Source: TowerGroup estimates

# The Barriers

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- ◆ **Expensive new business processes**
- ◆ **Automation of old functions**
- ◆ **Security**
- ◆ **Timing & Behavior Changes Hard to Predict**
- ◆ **Back-Office Ripple Effect**



# Viewing These Barriers Today

◆ Expensive new business processes

◆ Right

◆ Automation of old functions

◆ Right

◆ Security

◆ Right

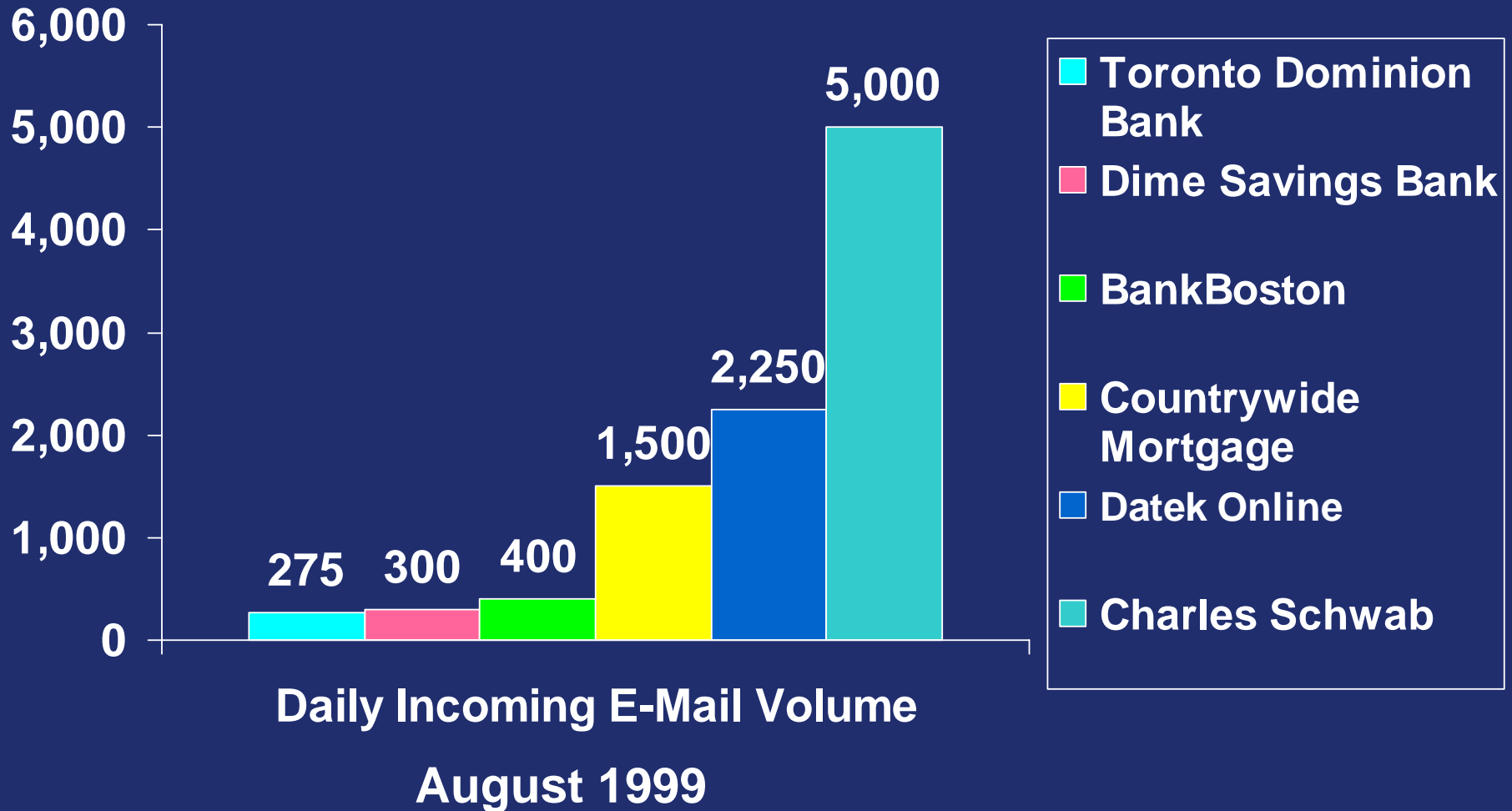
◆ Timing & Behavior Changes Hard to Predict

◆ Wrong

◆ Back-Office Ripple Effect

◆ Right

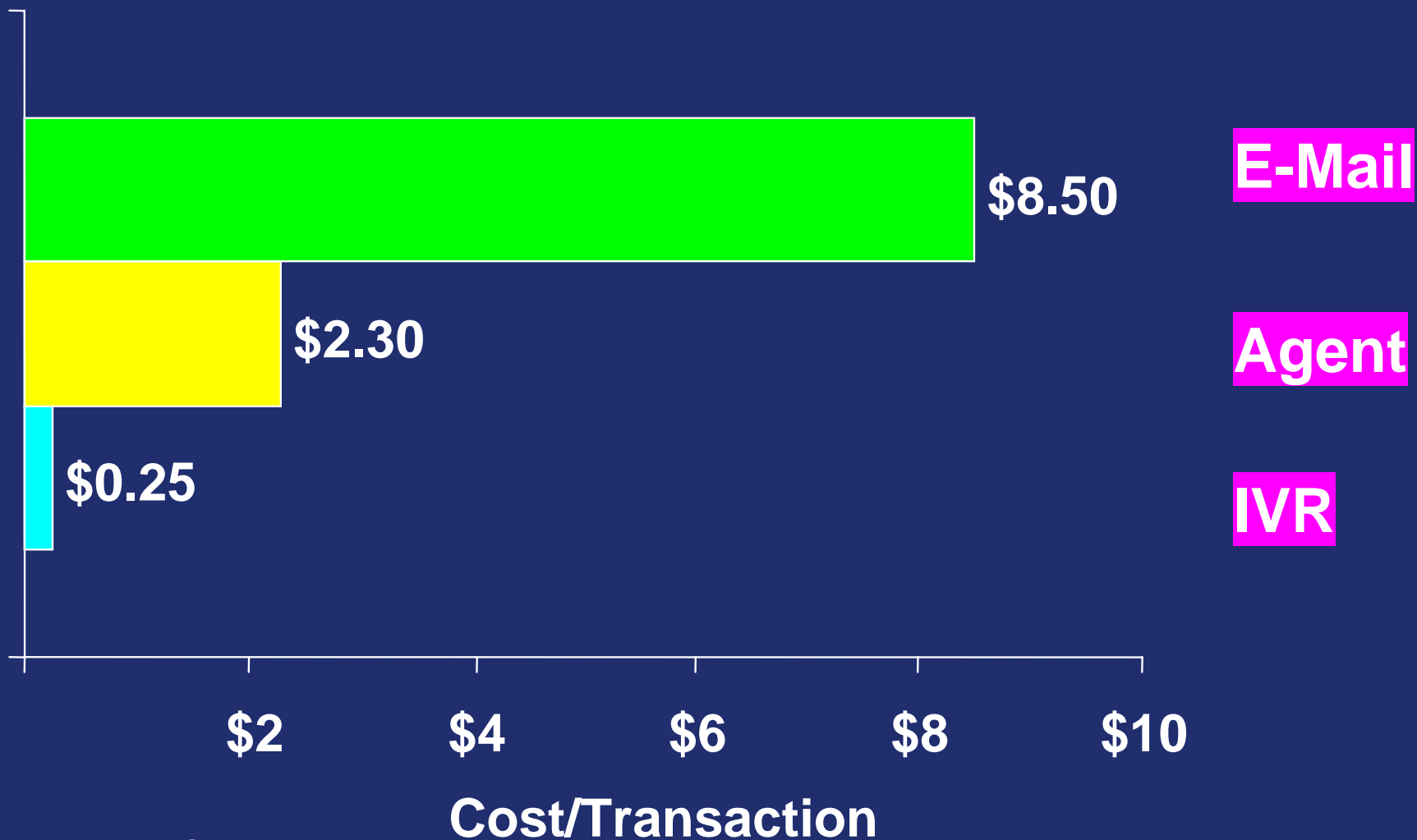
# Daily E-Mail Volumes at Selected FSIs



Source: TowerGroup estimates

# Is E-Mail Going to Break the Bank?

## Bank Costs for Call Center Contacts



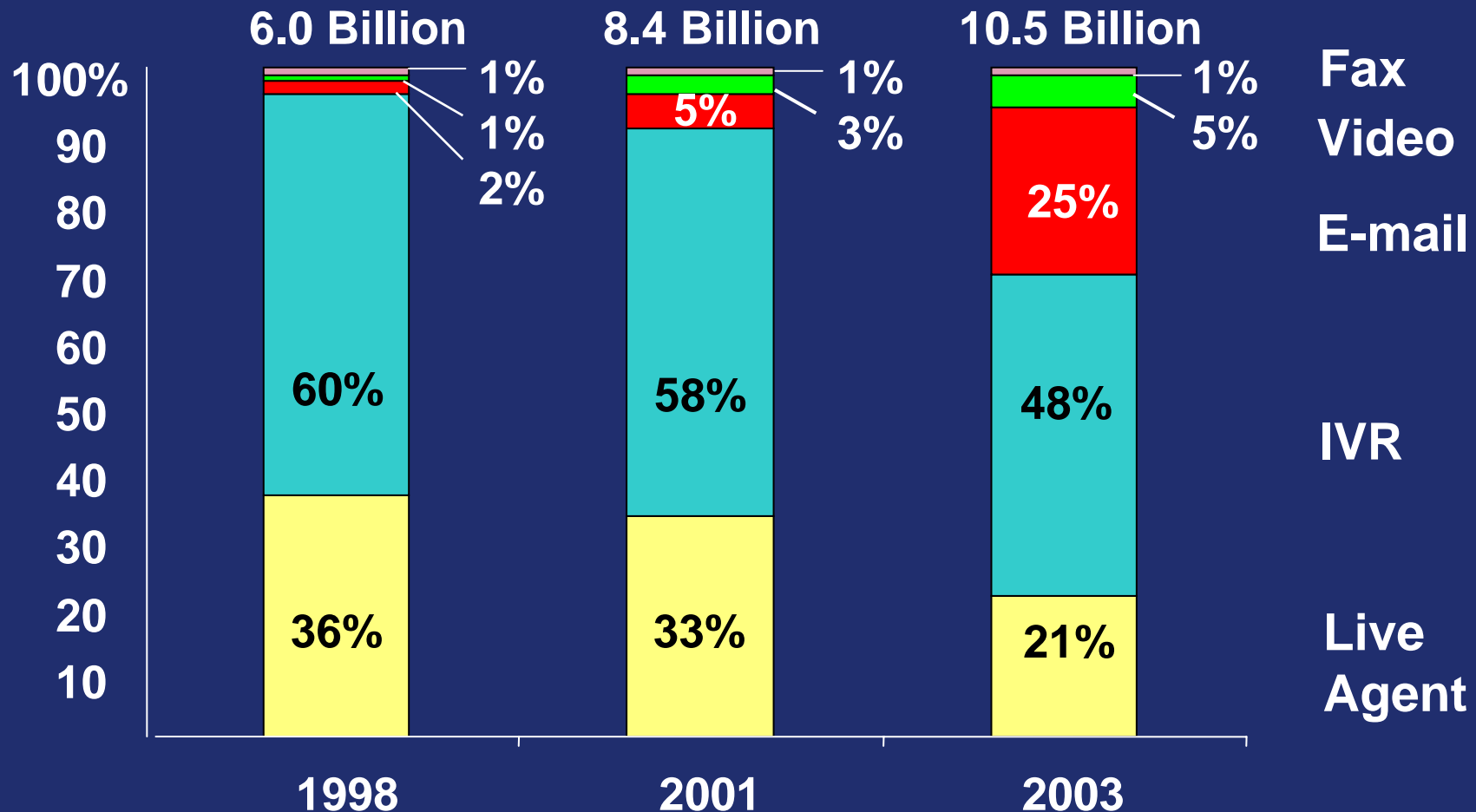
Source: TowerGroup estimates

# Completely Wrong on Email

- ◆ **Outbound emails huge: alerts, confirmations, marketing, disclosures, e-statement ready**
  - ✓ **High volume, totally impersonal**
  - ✓ **Huge efforts to build and maintain accurate email address databases**
- ◆ **Email address becoming mandatory**
- ◆ **Virtually no inbound email allowed**
- ◆ **Specific customer service situations handled through “secure message center” on website**
- ◆ **Huge privacy & “opt-out” considerations**

# Call Center Evolving into Contact Center: An Increasing Variety of Channels to Support

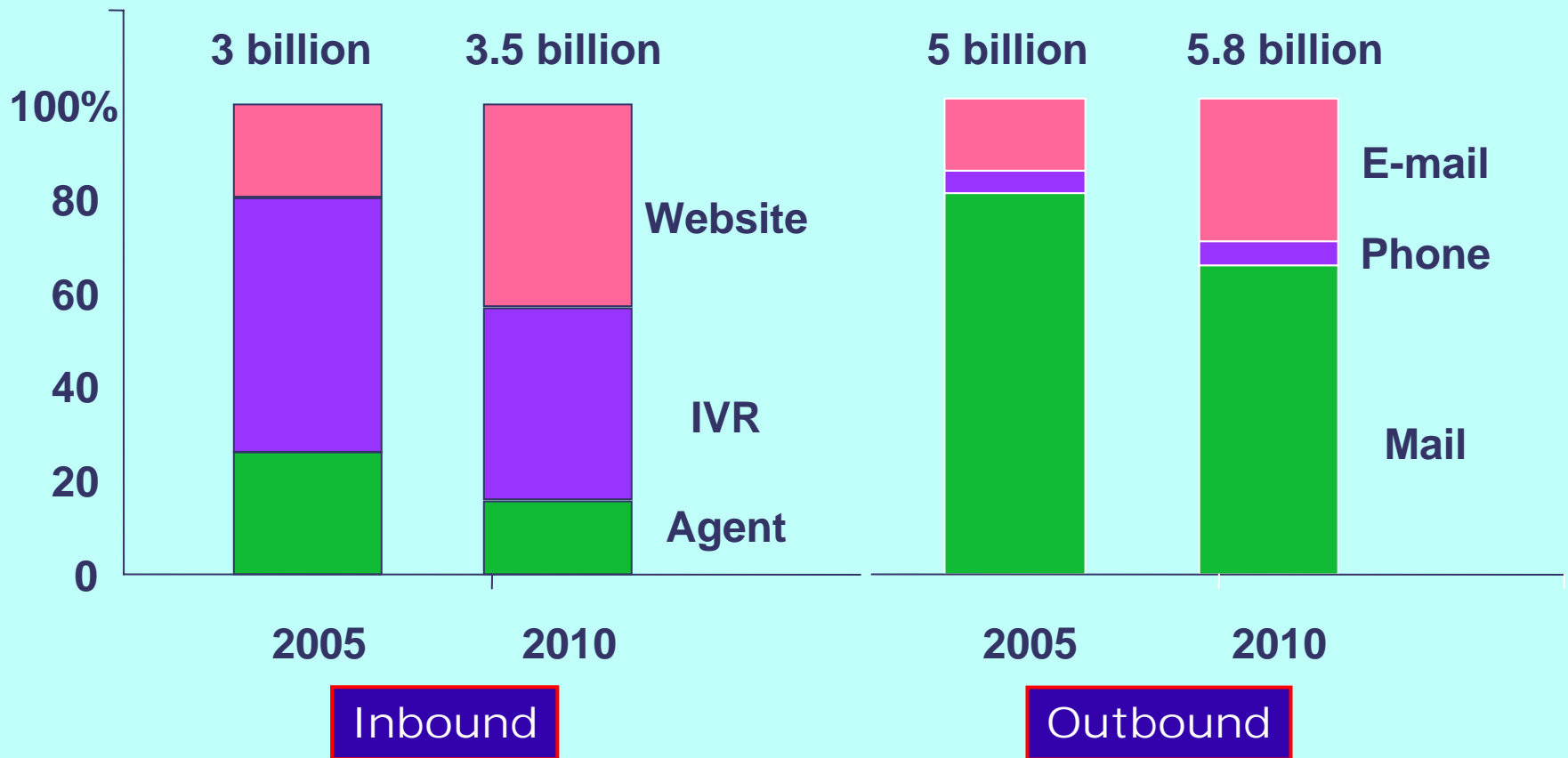
## % of US Banking Contact Center Transactions



Source: TowerGroup estimates

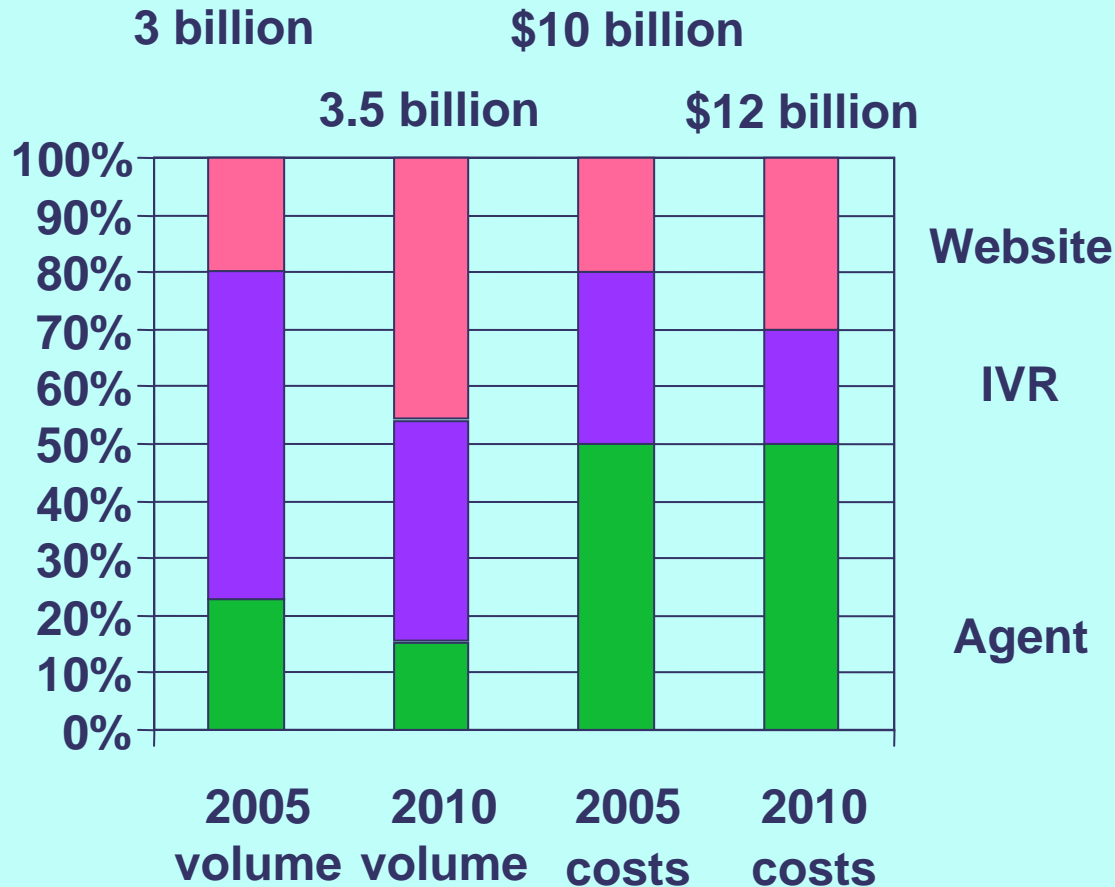
# Right Trend - Wrong Mix

**Website/email will become the principal customer service channel for US banks**



**% of US Banking Contact Center Transactions**

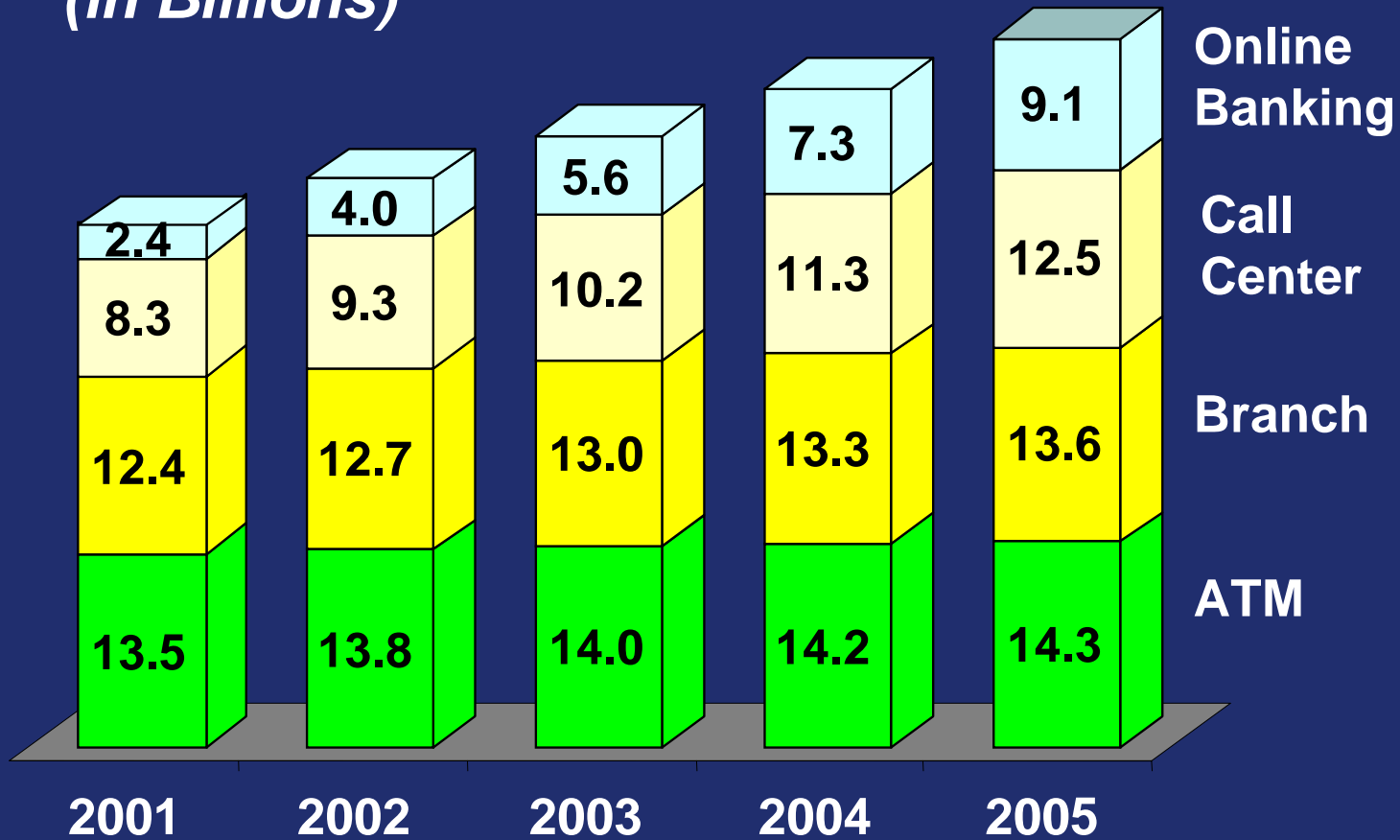
# The Inbound Costs are Inverse to the Volume



US Banking Inbound Contact Center Transactions

# Customer Use Reflects Importance of Branch *(The Branch is Still Alive)*

US Annual "Customer Interaction" Volume  
*(in Billions)*

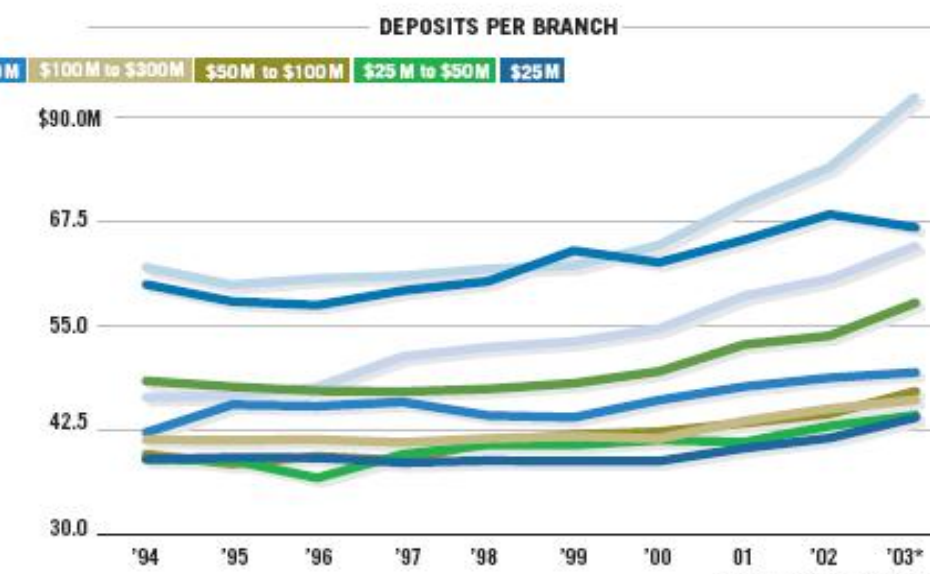
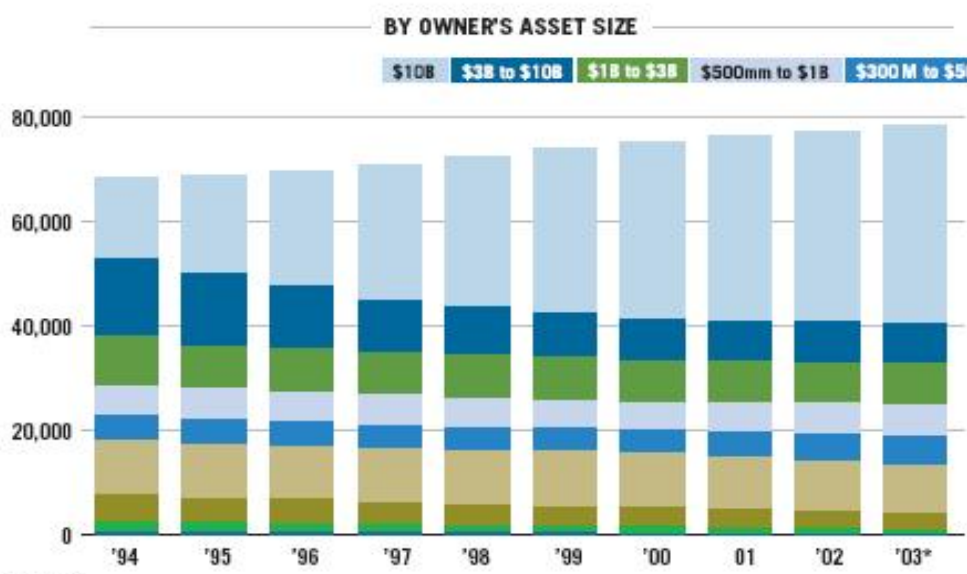
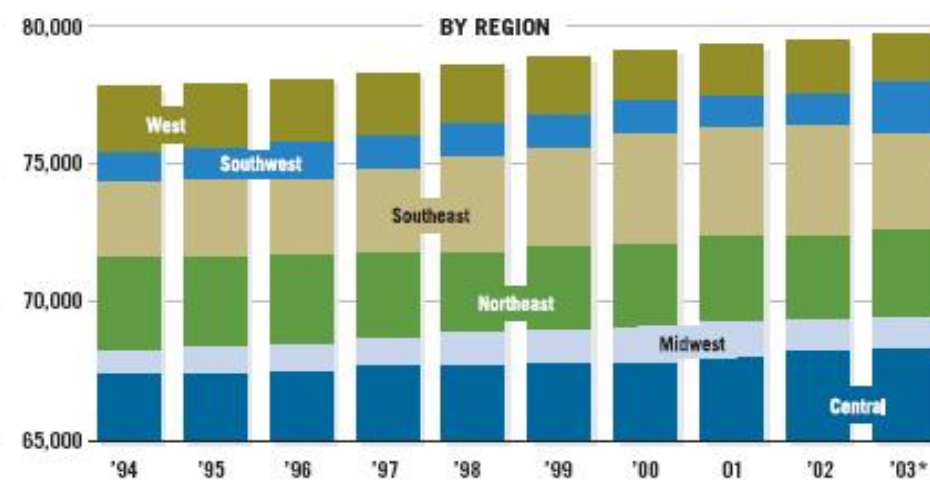
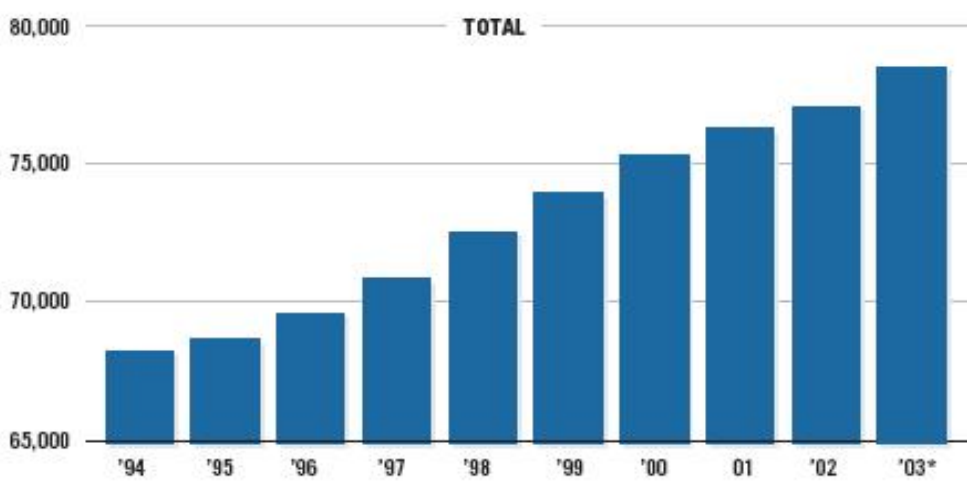




# US Growth Rate Reflects Branch Importance

*(American Banker's "Infographic" – 1/20/04)*

A Decade of Growth U.S. commercial bank and thrift branches



\*First half Source: Lehman Brothers, F

# Credit Card Account Internet Access, 4Q99

Citigroup	✓
Banc One/First USA/Wingspan	✓✓
MBNA America	
Morgan Stanley Dean Witter & Co. (Discover)	✓
Chase Manhattan Corp.	✓✓
Household Credit Services	
AT&T Universal Card Services Corp.	✓✓
American Express Co. (charge card, Optima revolving card, and Blue)	✓✓
Capital One Financial Corp.	testing
Fleet Bank	✓✓
Bank of America	✓✓

✓ ✓ = Full  
access  
✓ = Partial  
access

# Mandatory Channel of Intense Competitive Effort for Card Issuers

- ◆ Huge efforts to register consumers – print ads, mailings, rewards: 10-40% penetration
- ◆ Functionality frontier moving beyond paper & phone channel: unique functions available
- ◆ Paper statement & other paper communications suppression is the next big wave
- ◆ Clear differences in banks' online channel levels of investment & capabilities

# Product Integration is Fundamental Choice



- Bank of America
- Wells Fargo
- USBank

- Chase

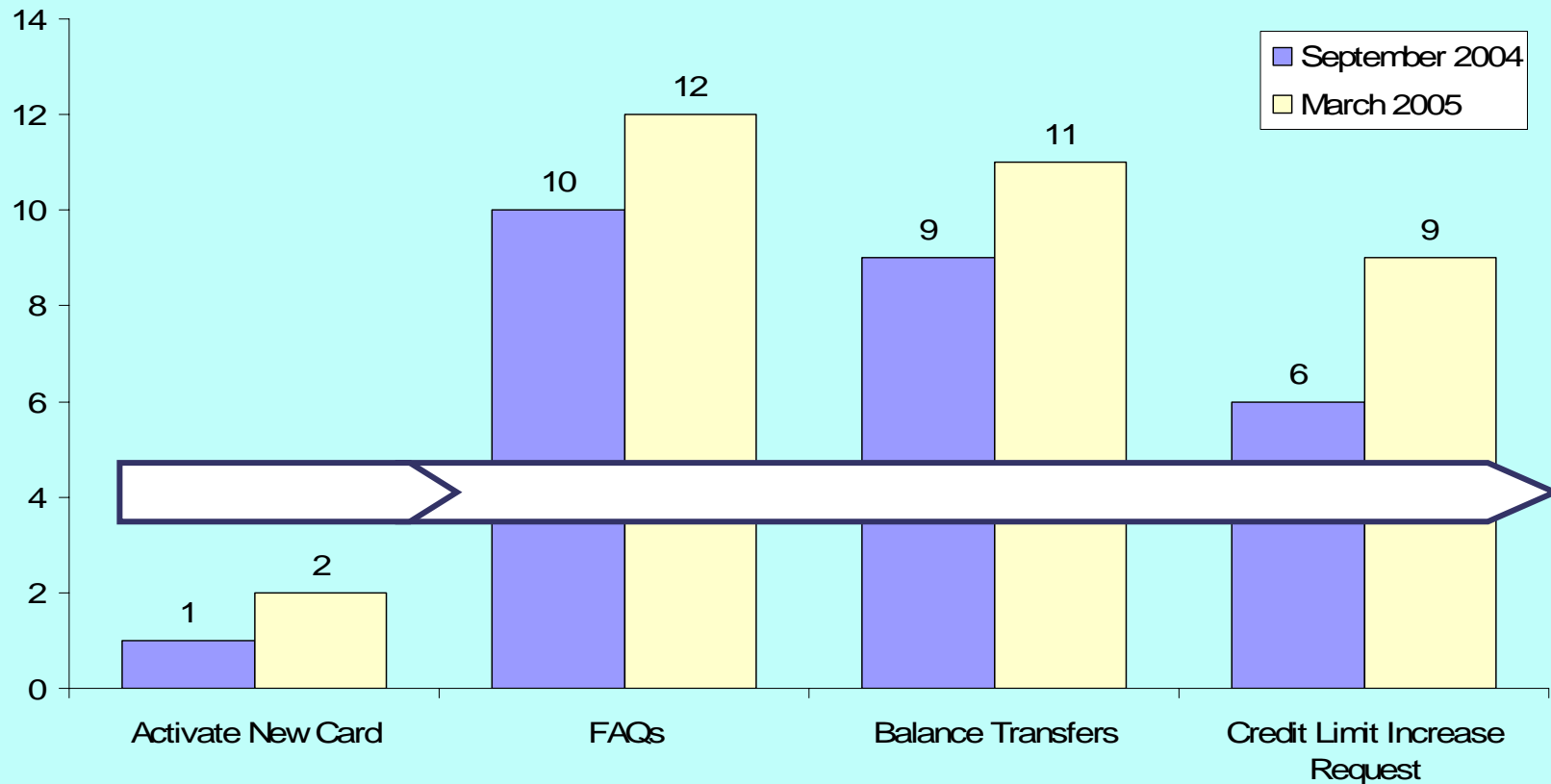
- Citibank
- MBNA
- Bank One
- Juniper
- Providian

- American Express

- Capital One
- Discover

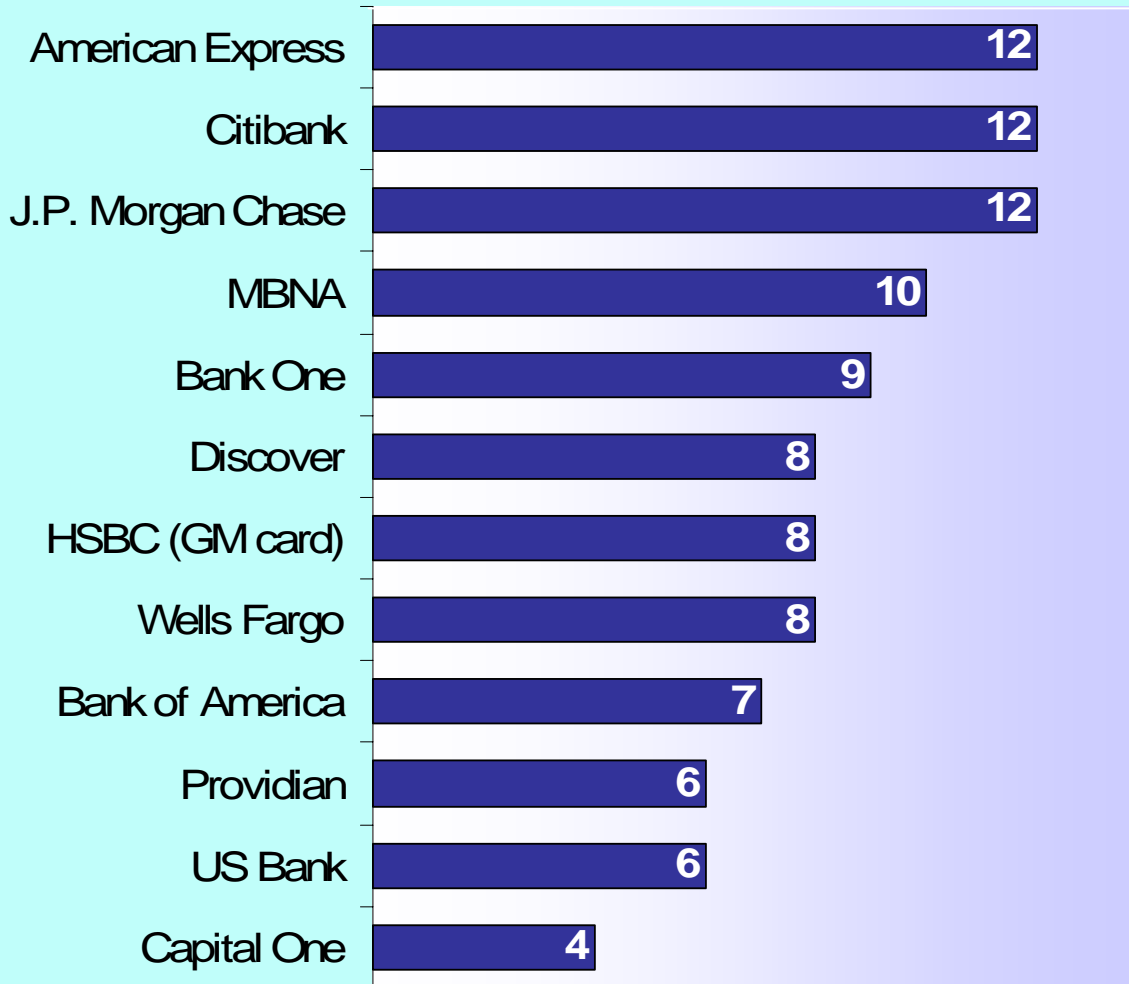
# Issuer Investments in Web-Based Self-Service Has Shown Noticeable Growth in the Last Six Months

Growth in Selected Web-Based Self-Service Functions Among Major Issuers (September 04 – March 05)



*Mapped against the credit card lifecycle, recent investments in web-based self-service have focused on Servicing and, to a lesser degree, Origination.*

# Major Issuers Offering Selected Online Self-Services March 2005



Count of Self-Service Features (March 2005)

## Observed Self Service Features

- Profile Updates
- Balance Transfers
- Add Authorized User
- Remove Authorized User
- Request Convenience Checks
- Request PIN
- FAQ's
- Credit Limit Increases
- Add Additional Cards
- Remove Online Cards
- Online Dispute Processing
- Order Replacement Cards
- Credit Balance Refunds
- Activate New Card
- Lost / Stolen Card Reporting
- Search of Secured Site
- Glossary

Note: Despite their recent merger, J.P. Morgan Chase still operates a separate site for Bank One customers..

Source: Livermore Research Group, 2004; Mercator Advisory Group, 2005

Source: Mercator Advisory Group

# Paper Solicitation adds Website

Christian T. Silva  
9 Livermore Rd.  
Wellesley Hls, MA 02481-6119

**0 % Tasa APR Introdutoria  
para Transferencias de Saldo  
hasta marzo del 2006\***

**Además, una baja tasa APR variable  
del 9.99% en Compras\***

Estimado(a) Christian T. Silva:

Usted ha demostrado merecer una tarjeta de crédito diferente ... una que le dé flexibilidad y seguridad financiera, y que a la vez le brinde acceso a uno de los programas más completos de beneficios y privilegios. Aprovechese de una Tasa APR Introdutoria de 0% en tranferencias de saldos hasta marzo del 2006\* y después una baja tasa APR variable de 9.99% en compras.\* Le presentamos la tarjeta **Direct Merchants Bank® Platinum MasterCard®, El Banco con sentido Latino™**. Direct Merchants Bank es uno de los principales emisores de tarjetas MasterCard en los Estado Unidos y le ofrece.

**0% Tasa APR Introdutoria para Transferencias de Saldo hasta marzo del 2006.\*** Algunas tarjetas de crédito sólo ofrecen tasas introductorias en las transferencias de saldos por 5 meses. ¡No la nuestra—usted disfrutará de una tasa APR Introdutoria 0% en las tranferencias de saldos hasta marzo del 2006!\*

**Beneficio Agregado: Seguro contra Robo de Identidad.\*\*** Con el seguro contra Robo de Identidad usted tendrá la tranquilidad de saber que sus gastos elegibles serán cubiertos en caso que usted se convierta en víctima de robo de identidad. La cobertura incluye salarios perdidos elegibles, honorarios de abogados y otros costos elegibles asociados con el proceso de retornar su vida a la normalidad.

**El servicio opcional Account Protection Plus™—Protege Su Cuenta.** Por unos cuantos centavos diarios usted tendrá la tranquilidad de saber que su cuenta estará protegida en caso de que usted involuntariamente pierda su trabajo, quede incapacitado para trabajar, tome una ausencia aprobada del empleo sin sueldo, o en caso de fallecimiento. No habrá pagos mensuales, intereses, ni cargos a su cuenta. En caso de que usted fallezca, su saldo completo, a la fecha de su fallecimiento, será cancelado. Usted no podrá usar su tarjeta durante el período del beneficio.

**Hay tres formas muy fáciles de solicitar su tarjeta en español:** responda por Internet en [www.AceptaYa.com](http://www.AceptaYa.com), llene el Certificado de Aceptación al pie de esta carta y envíelo utilizando el sobre adjunto con franqueo prepagado, o llame gratis al **1-877-886-0675** para aprovechar esta oferta exclusiva. Su Número de Reservación es **5931477789-PJ**.

Atentamente,



Ernesto Aguero  
Director, Direct Merchants Credit Card Bank, N.A.

# The Reservation Website

## AceptaYA.com

In English

Conteste a más tardar el: FECHA

Estimado John Q. Sample:  
2159 Greenspring Dr.  
Timonium, MD 21093-9433

9999999999-XX 9803AR2082  
YO 00

Nos complace el poder brindarle una  
conveniencia más: realizar su solicitud en línea.

- 1 Para comenzar, localice el casillero que contiene su dirección en el Certificado de la Solicitud.
- 2 Ahora, registre su Número de Reservación. (que se encuentra debajo de su dirección - son 10 números y 2 letras.)
- 3 Haga clic aquí para tramitar su solicitud personal.

Tramite



[Declaración de Privacidad](#)

© 2001-2004 Metris Direct, Inc.



# Inside the Reservation Site – Prefill Helps Up the Completion Ratio

**1** Complete su información      **2** Opciones      **3** Confirmación      **4** Enviado

## Datos Personales

\* Campos exigidos

Nombre*	Inicial Apellido *	Sufijo	Fecha de Nacimiento*
<input type="text" value="CHRISTIAN"/>	<input type="text" value="T"/> <input type="text" value="SILVA"/>	<input type="text" value="Seleccione uno"/> ▼	<input type="text"/> - <input type="text"/> - <input type="text"/> (mes/día/año)
Dirección - Línea 1*			# Seguro Social*
<input type="text" value="9 LIVERMORE RD"/>			<input type="text"/> - <input type="text"/> - <input type="text"/>
Dirección - Línea 2			Apellido de su madre
<input type="text"/>			<input type="text"/> (por seguridad)
Ciudad*	Estado*	Código Postal*	Dirección de correo electrónico personal
<input type="text" value="WELLESLEY HLS"/>	<input type="text" value="Massachusetts"/> ▼	<input type="text" value="02481"/>	<input type="text"/>
Teléfono Particular*			<input type="text"/>
<input type="text"/> - <input type="text"/> - <input type="text"/>			<a href="#">Haga click aquí</a>

NB: “Instant response” defacto standard

Source: Metris

# FICO Score Freely Available After Login

[Account Information](#) [Make a Payment](#) **Credit Profile** [Transfer a Balance](#)

Account:  [go](#)

**Important Notifications** [New Messages](#)

Keep track of your credit using the FICO® Score Tracking chart below.

**FICO® Score** [Help](#)

Your FICO credit score is 803

Find out the [primary reasons](#) why your score is 803, and what actions can change it. See how simple changes can affect scores with the [FICO Simulator](#).

300 350 400 450 500 550 600 650 700 750 800 850

Lowest Highest

Updated on: 04/01/2005  
Provided by: TransUnion  
[FICO Score Help](#)

**Complete credit score analysis**  
Get your complete credit report with tips for improvement.  
[Learn More](#)

**Credit Report Snapshot**

<a href="#">Number of Accounts:</a>	15+
<a href="#">Number of Open Accounts:</a>	15+
<a href="#">Number of Closed Accounts:</a>	Unavailable
<a href="#">Inquiries:</a>	1
<a href="#">Derogatory Items:</a>	0
<a href="#">Number of Delinquencies:</a>	Unavailable
<a href="#">Total Revolving Balances:</a>	\$4,000-\$4,499

**Introducing Ellie Kay**  
America's Family Financial Expert®  
Best-selling author Ellie Kay helps families get a handle on their finances. Now, she teams with Providian to offer simple ways to better manage your credit.  
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Get your free Credit Education Fulfillment Kit, full of valuable information for managing your credit! You will need [Adobe® Reader™](#) to download the Kit.  
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**Credit 101**

[Create a Workable Budget](#)  
[Credit Management](#)  
[Protect Yourself from Identity Theft](#)

**Quick Links**

[Budget Calculator](#)  
[Spending Profile](#)  
[E-mail Alerts](#)

# Powerful Affinity Brand Tie-ins (Bank One)

[Home](#) | [On-Your Accounts](#) | [Explore CardMember Services](#)  
 May 06, 2005

**Disney** | [Pay Online](#) | [Order Convenience Checks](#) | [Transfer A Balance](#)

[Account Summary](#) > [View Current Offers](#) > **Disney Merchandise**

[Print](#) | [Help With This Page](#)

<b>Disney card</b>	<b>Outstanding Balance</b>	<b>\$77.18</b>	Select Action <input type="button" value="GO"/>
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The following Disney Merchandise offers are currently available to you. To view the specifics of an offer, click on the "offer description." To see other categories of offers, please select from the View Other Categories drop-down list.

**Current Disney Offers**

Offer Description	Status
<a href="#">Cardmember Exclusive "Happiest Celebration On Earth" Pin</a>	New
<a href="#">Earn Triple* Rewards when you shop at DisneyAuctions.com</a>	New
<a href="#">Earn Triple* Rewards when you shop at DisneyDeals.com</a>	New
<a href="#">Summer Savings at Disneydirect.com</a>	New
<a href="#">Save 10% on "A Musical History of Disneyland®" CD Box Set</a>	New
<a href="#">20% off Master Replicas</a>	Expiring Soon
<a href="#">Exclusive Lenox Salt &amp; Pepper Shakers</a>	
<a href="#">Exclusive Pooh &amp; Friends Heffalump Figurine</a>	
<a href="#">Save 20 on 3 Day Blinds Disney Home Custom Window Coverings</a>	
<a href="#">Special Mickey Watch Offer - save 40%!</a>	
<a href="#">Special Offer from Disney Movie Club!</a>	
<a href="#">Springtime Savings at Disneydirect.com</a>	

**Have Online Account Management Questions? Call us at 1-877-999-3872.**  
**Have additional questions regarding your Account? Call us at 1-800-300-8575.**

© 2005 Disney as to Disney elements



Click here to discover exciting offers from around the world of Disney.



50th Anniversary Savings—Just for Cardmembers!



Save 10% on "A Musical History of Disneyland®" CD box set at DisneyDirect.com!

[View Other Categories](#) |  |

- Select Category
- View All Categories
- Walt Disney World® Resort
- Disneyland® Resort
- Disney Entertainment
- Disney Merchandise
- Other Disney Vacations
- Other Exciting Offers

# Credit, Debit, & Check Purchases Categorized & Summarized (Wells Fargo)

## Credit Accounts

Account	Account Number	Outstanding Balance	Available Credit
CC personal test <a href="#">View Spending Report</a>	xxxx-xxxx-xxxx-3429	\$156.10	\$8,843.90
<b>Total</b>		<b>\$156.10</b>	<b>\$8,843.90</b>

To end your session, be sure to Sign Off.



<u>Category</u>	<u>MAY to Date</u>	<u>APR</u>	<u>MAR</u>
<u>Airlines</u>	\$0.00	\$0.00	\$0.00
<u>Auto Rental</u>	\$0.00	\$0.00	\$0.00
<u>Education</u>	\$0.00	\$0.00	\$0.00
<u>Gas / Automotive</u>	\$88.34	\$0.00	\$0.00
<u>Groceries</u>	\$18.06	\$0.00	\$0.00
<u>Healthcare</u>	\$0.00	\$0.00	\$0.00
<u>Household / Services / Utilities</u>	\$0.00	\$0.00	\$0.00
<u>Lodging</u>	\$0.00	\$0.00	\$0.00
<u>Other Travel-Related &amp; Entertainment</u>	\$0.00	\$0.00	\$0.00
<u>Restaurants</u>	\$27.20	\$0.00	\$0.00
<u>Retail / Department Stores</u>	\$22.50	\$0.00	\$0.00
<u>ATM Withdrawals</u> <sup>1</sup>	\$0.00	\$0.00	\$0.00
<u>Cash Advances from Credit Cards</u> <sup>1</sup>	\$0.00	\$0.00	\$0.00
<u>Checks Written</u> <sup>2</sup>	\$0.00	\$0.00	\$0.00

# Discover Allows Unlimited Card Choice

## Request a New Card Design

Select an existing Cardholder to receive a new Card design.

- DIOGO TEIXEIRA
- ROSIE TEIXEIRA
- HEATHER TEIXEIRA
- ALEXANDER TEIXEIRA
- CHRISTINE TEIXEIRA
- KIRSTEN BLAKELEY
- BERNARDO TEIXEIRA
- LUCY HELLER
- ROSALIND STRAWN
- MARIE TEIXEIRA
- EUNICE HAWLEY
- GRETCHEN EWING
- BUCHANAN EWING
- MARK LAWSHE
- SIMONE MILLER
- CHARLES BRUCE
- ROBIN ZOERHIDE
- ELLEN SWALLOW RICHARDS
- HENRY LIVERMORE ABBOTT
- ABIGAIL TUCK LIVERMORE
- RUFUS LIVERMORE
- MARY ASHTONRICE LIVERMORE

## Add a New Person to Your Account

Want to share your Account with someone new? [Add an Authorized User to your Account](#). It's free—you can even choose a Card design for the new user.

## Request a New Card Design

Select a Card Design for: DANIEL D TOMPKINS

Choose a design or browse another category.

### Clear - Aquatic Wildlife

### View Another Card Design Category

Clear - Aquatic Wildlife



#### Clear Clown Fish

[Select this Design](#)



#### Clear Dolphin

[Select this Design](#)



#### Sea Turtle

[Select this Design](#)



#### Clear Shark

[Select this Design](#)



#### Clear Aquatic Life

[Select this Design](#)



#### Clear Coral Reef

[Select this Design](#)

# Linking the online statement to the Web

03/25/2005	03/24/2005	1375	MC	C	SUTTON PLACE GOURM - WASHING
03/25/2005	03/24/2005	5359	MC	C	BEST BUY 00008011 - WASHINGTON
03/26/2005	03/24/2005	0805	MC	C	<a href="#">CVS PHARMACY #1477 Q03</a> - SILVER
03/26/2005	03/24/2005	5536	MC	C	RED DOG CAFE 10000073 - SILVER
03/26/2005	03/25/2005	4866	MC	C	AMERICAN FILM INSTITUT - LOS AN
03/26/2005	03/25/2005	5689	MC	C	STARBUCKS USA 00075Q48 - WASH
03/26/2005	03/25/2005	5241	MC	C	PRESIDENT CIGAR 2 - WASHINGTON
03/28/2005	03/25/2005	7416	MC	C	RED DOG CAFE 10000073 - SILVER
03/28/2005	03/26/2005	0636	MC	C	EINSTEIN BROS #2385 - SILVER SP
03/28/2005	03/26/2005	3917	MC	C	<a href="#">BUDGET RENT-A-CAR</a> - HANOVER M
CHECK OUT DATE 3/26/05					
03/30/2005	03/28/2005	0136	MC	C	SPORTS AND PHYSICAL - WELLESLE
03/30/2005	03/28/2005	1077	MC	C	<a href="#">SOUTHWES</a> - DALLAS TX
03/31 PVD/BWI RNDTRP BWI/PVD					
03/30/2005	03/28/2005	1085	MC	C	<a href="#">SOUTHWES</a> - DALLAS TX
03/31 PVD/BWI RNDTRP BWI/PVD					

Merchant Information/Offers: [CVS](#)

**CVS/pharmacy**

Contact Information

[CVS](#)  
 One CVS Dr.  
 Woonsocket, RI 02895  
 1-401-765-1500

[Find a location near you](#)

Customer Service:  
 1-888-607-4287

- Budget Rent-A-Car
- CVS
- ExxonMobil
- Holiday Inn
- Rite Aid
- Southwest Airlines
- U.S. Postal Service
- 1-800 CONTACTS
- 1-800-Flowers.com
- AAMCO Transmissions
- ACME Markets
- Albertson's
- Auto Driveaway Co.
- Avis Rent-A-Car
- BabyCenter

# B of A and I-Pix Allow Card Personalization

## Step 2: Upload and Edit Your Photo

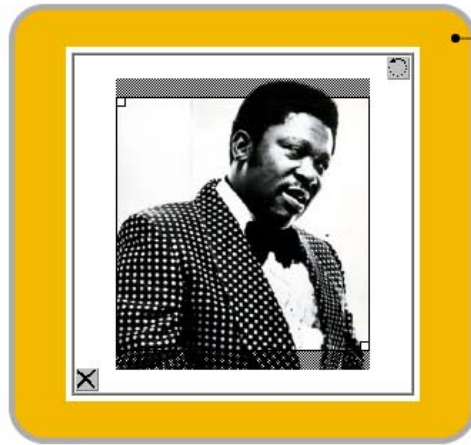
The process is easy - just follow the instructions below.

- Click on the large photo box with the iPIX logo below.
- Navigate to the location where you have saved your digital photo.
- Select the photo and click **Open**.
- Once your photo appears, edit it as you would like it to appear on your card. See the example photo below for more information on editing.
- Select **Preview** to see what your card will look like.

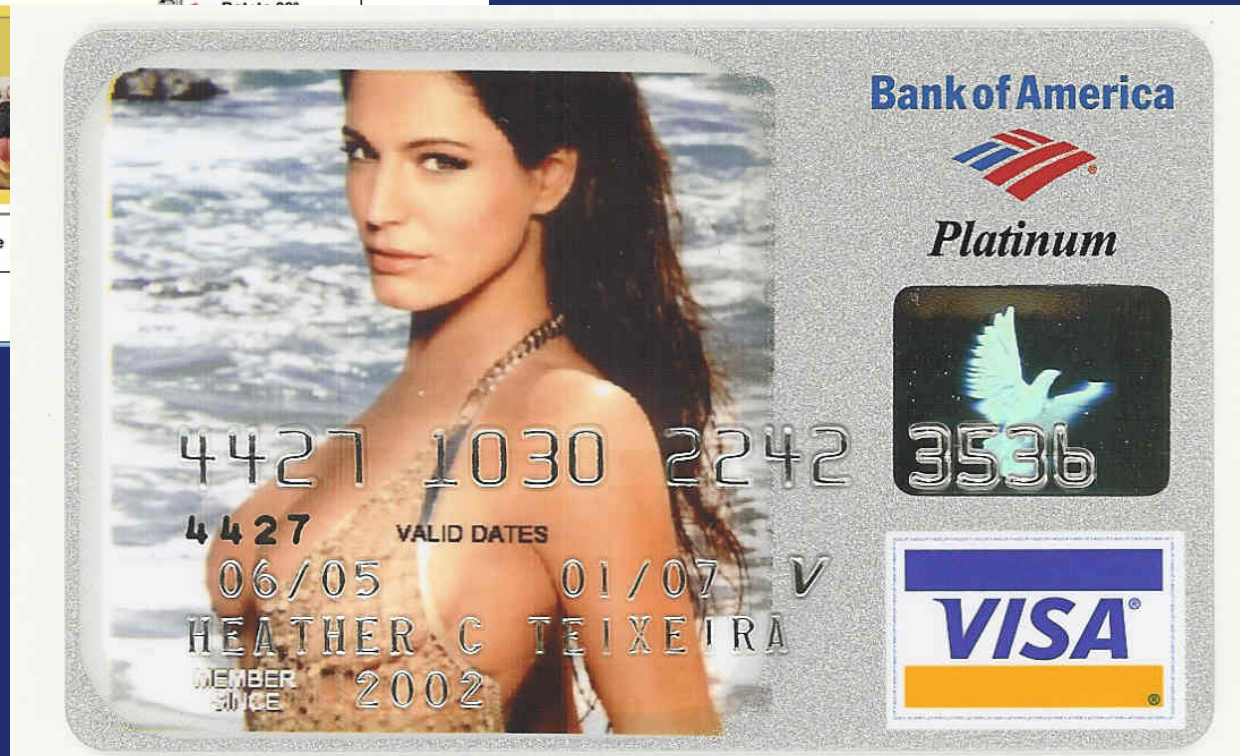
### Frequently Asked Questions

[Will my original photo change after I edit it online for Photo Expressions?](#)

[Do I need to resize my photo before I start?](#)



This example illustrates how to edit your photo in the box to the left



# The Bottom Line – US Bank Websites

- ◆ Progress has been immense since 1999
- ◆ The website quality spread is very broad
- ◆ There's few established industry paradigms
- ◆ New developments tend to be modular
- ◆ Citibank is still ahead in most areas
  - ✓ AmEx, BofA interesting
  - ✓ Fidelity rocks
  - ✓ Wells Fargo goes their own way
- ◆ Websites = high fixed cost = larger player advantage